Self-Representation in Upper Paleolithic Female Figurines

by LeRoy McDermott

This study explores the logical possibility that the first images of the human figure were made from the point of view of self rather than other and concludes that Upper Paleolithic “Venus” figurines represent ordinary women’s views of their own bodies. Using photographic simulations of what a modern female sees of herself, it demonstrates that the anatomical omissions and proportional distortions found in Pavlovian, Kostenian, and Gravettian female figurines occur naturally in autogenous, or self-generated, information. Thus the size, shape, and articulation of body parts in early figurines appear to be determined by their relationship to the eyes and the relative effects of foreshortening, distance, and occlusion rather than by symbolic distortion. Previous theories of function are summarized to provide an interpretive context, and contemporary claims of stylistic heterogeneity and frequent male representations are examined and found unsubstantiated by a restudy of the originals. As self-portraits of women at different stages of life, these early figurines embodied obstetrical and gynecological information and probably signified an advance in women’s self-conscious control over the material conditions of their reproductive lives.

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The world’s oldest surviving works of art fashioned after the human image appear in the archaeological strata of the Upper Paleolithic in Europe, shortly after Homo sapiens sapiens emerged onto the center stage of biocultural evolution. Questions about their meaning and significance began with Pierre’s [1895] and Reineck’s [1898] early descriptions of finds from the rock shelters and caves of southern France and northern Italy. Since these pioneering efforts, several hundred additional images have been identified from the European Upper Paleolithic, most notably from modern France, Italy, Germany, Austria, the Czech Republic, Slovakia, and the Commonwealth of Independent States. The rich possibilities raised by a century of comparative and interpretive study have yet to generate a consensus about why our ancestors first began to create representational images of the human body or what functions they initially served [Conkey 1983].

This study challenges the assumption that images of the human figure were first created from the point of view of other human beings and argues instead that the art of representing the human body originated with visual information derived primarily from the physical point of view of “self.” After restudying the originals from this neglected point of view,2 I conclude that the oldest images of the human body literally embody ego-centric or autogenous [self-generated] visual information obtained from a self-viewing perspective [McDermott 1985]. Furthermore, since all the earliest, best-preserved, and most refined pieces appear to be analog representations3 of women looking down on their changing biological selves, I conclude that the first tradition of human image making probably emerged as an adaptive response to the unique physical concerns of women and that, whatever else these representations may have symbolized to the society which created them, their existence signified an advance in women’s self-conscious control over the material conditions of their reproductive lives.

Before representational art or mirrors, there were only two sources of visual information about human appear-

1. The thesis of this paper was first presented at the 6th Annual Meeting of the Midwest Art History Society, held at the University of Kansas, April 5–7, 1979, and subsequently at the 12th International Congress of Anthropological and Ethnological Sciences (ICAES), meeting at Zagreb, Yugoslavia, July 24–31, 1988. The research has been assisted by grants from Eastern Montana College and Central Missouri State University, and the following institutions have made casts and/or originals available: Musée des Antiquités Nationales et Saint Germain-en-Laye, Musée de l’Homme, Paris, Museo Preistorico ed Etnografico Luigi Pigorini in Rome, Mittelrheinisches Landesmuseum, Mainz; Prähistorische Sammlungen, Ulm; Sammlungen des Instituts für Vor- und Frühgeschichte der Universität Tübingen, Prähistorische Staatssammlung in Munich, Naturhistorisches Museum at Vienna, Moravské Museum in Brno, Czech Republic, and the University of Kansas Anthropology Museum. I thank Elizabeth Banks, Jill Cook, Catherine Hodge McCoid, Bradley Lenz, Anta Montet-White, and Olga Soifer for their critical and conceptual contributions to this project. Cathy Clark, Suzanne Olmstead, and Lisa Schmidt have developed photographic inventories in support of the project. I also gratefully acknowledge the cooperation of the expectant mothers who made it possible for me to explore this hypothesis.

2. This study reexamined, either in the original or as casts [or both], most Western and Central European images dated to the Pavlovian and Gravettian. Study of Kostenkian pieces was limited to four casts from Gagarino, two from Avdeev, and three from Kostenki, courtesy of the Moravian Museum in Brno, Czech Republic.

3. An “analog” image is not to be confused with the use of “analogical” methodologies in archaeological interpretation. Analog requires only that there be sufficient similarity to justify comparison. In contrast, a modern photograph or other analog image is a physical transform or record of the energy [or light] which it captures. Thus, in theory, a continuous physical variable links any realistic image and the original visual information which it represents, even if in practice that link can rarely be reconstructed. If the first images of the human body were created from self-generated information, they necessarily have the structure we observe.
ance—either one’s own body or that of another human being. At the beginning of art history there would have been no a priori reason to choose one source over the other. Admittedly, there is the practice of more recent millennia to influence our thinking, but what other basis do we have for assuming that at the beginning of image making a prehistoric artist would “naturally” have chosen to represent another human being rather than self? To determine what choice of visual information actually prevailed at the beginning of representation in the Upper Paleolithic, the attributes of the surviving images should be experimentally examined for the structural regularities predicted if the artist’s body served as the original model. There is no reason to suspect that information from direct visual self-inspection has changed since the Upper Paleolithic, and thus the image projected onto the retina of a woman living today constitutes the visual analog of that perceived by her long-dead ancestors. What modern females see when looking down upon themselves can be photographically simulated and compared with the original artifacts viewed from a similar perspective. When the distinctive form and content of this self-generated information is thus compared with the attributes of the earliest human figures similarly seen, a strongly naturalistic and lifelike correspondence is in fact routinely encountered. In the first representations of the human body, the “disembodied” view of objective anatomical proportions which governs modern scientific thinking appears to have been less imtant than the optically “correct” relationships of a more immediate subjective perspective.  

The First Human Images

The earliest prehistoric representations, the so-called Venus figurines, constitute a recognizable stylistic class and are among the most widely known of all Paleolithic objects (figs. 1 and 2). As a group they have frequently been described in the professional and popular literature [Abramova 1967a, b; Bahn and Vertut 1988; Burkeit 1934; Conkey 1987; Delporte 1993a, b; Dobres 1992a, b; Duhard 1993b; Gamble 1982; Giedion 1962; Gómez-Tabanera 1978; Gvozdover 1989b; Graziosi 1960; Hadingham 1979; Hancar 1939–40; Jelinek 1975, 1988; Leroi-Gourhan 1968a, b, 1982; Luquet 1934; Marshall 1991a, b; McDermott 1985; Pales and de St.-Perere 1976; Passemard 1938; Pfeiffer 1982; Praslov 1985, 1986; Putnam 1988; Saccasyn-Della Santa 1947; Ucko and Rosenfeld 1967; White 1986]. Scholars and the public alike have been struck by the generally realistic quality of many of these early female figurines [Abramova 1967b:67; Duhard 1993b; Luquet 1934:439; Piette 1895;130; Praslov 1985:182; Saccasyn-Della Santa 1947]. Almost everyone sees nude women either opulently endowed or embarrassingly obese [Regnault 1912]. Upon analysis, however, the actual forms of the figurines are revealed to be so much at variance with anatomical exactitude that many researchers have seen them as reflecting arbitrary convention and abstract schematization rather than observational reality [Conkey 1983:215; Dobres 1992b:255; Leroi-Gourhan 1968a: 207]. In fact, it is the specific way in which reality is integrated with presumably conceptual departures from anatomical objectivity that best defines this style of image.

These mostly palm-sized statuettes appear to depict nude obese women with faceless and usually downturned heads, thin arms which commonly end or disappear under the breasts (but occasionally cross over them), an abnormally thin upper torso carrying voluminous and pendulous breasts, exaggeratedly large or elevated buttocks often splayed laterally but sometimes distended rearward, a prominent, presumably pregnant or adipose abdomen with a large elliptical navel, and what often appear to be oddly bent, unnaturally short tapering legs which terminate in either a rounded point or disproportionately small feet. Although readily recognizable, these anatomical details do not add up to an accurate image of the human figure.

I contend that it is the fixed angle of self-regard which accounts for both the odd “realism of parts considered independently one from another” observed by Saccasyn-Della Santa (1947:96) and Leroi-Gourhan’s conclusion that the figures appear “centered on the torso, breasts, thighs and abdomen,” with the rest “attenuated” or “dwindling away” above and below [1968a:207]. The latter researcher christened the collective result of these distinctive distortions, anatomical omissions, and general disproportion of parts the “lozenge composition” (1968a:90; 1968b]. The structural nature of these distortions has often been overlooked by scholars who see gen-

4. The oldest mirrors appear in the Neolithic [Mellaart 1967:208] in the form of polished obsidian discs found at Çatal Hüyük [ca. 8,500–7,700 B.P.]. Aqueous reflections were available during the Upper Paleolithic, but the horizontal surface of a natural pool distorts the proportions of full-length human figures in a manner completely at variance with those encountered in the first tradition of image making.

5. Although this hypothesis relies on visual evidence for its demonstration, tactile and somato-sensory information would certainly have contributed to any act of self-representation. Although it is virtually impossible to demonstrate such a role experimentally, tactile knowledge could easily have operated to fashion features which could not be seen from a self-viewing perspective. Representations of hair, for example, are often encountered among these images, and while the long tresses seen in vertically engraved lines at Lespeugue can descend into the visual field, close-fitting coiffures such as the checkerboard or quadrilatte pattern worn by the Grimaldi “Negroid head,” the “Brasempouy lady,” and a small relief from Laussel could not have been seen by their owners. This would also have been the case with the tight circular ringlets apparently favored farther east, as seen at Willendorf, Pavlov, Kostenki, Gagarino, and Avdeev [Delporte 1993a:figs. 7, 19, 44, 95, 128, 135c, 168, 174, 183]. Similarly, the tactile knowledge women can be expected to have of their hair may also have been the source for representations of the vulva, which is likewise normally outside the self-viewing visual field. The absence of the vulva in most of these images is strikingly consistent with the physical limits of visual self-inspection, whereas the fact that most female figurines with a vulva come from the single site of Grimaldi is logically consistent with regional variations in the way in which autogenous information, including that originating in touch, was employed in fashioning images of self.
FIG. 1. Anatomical distortions encountered in Pavlovian-Kostenkian-Gravettian figurines (redrawn after Leroi-Gourhan 1968a:90), showing the relationships Leroi-Gourhan called the “lozenge composition”: an abdominal circle with a diameter defined by the greatest width of the image (a, b), the incorrect proportions seen in the upper and lower body (c, d), the unnatural elevation of the vertical midpoint and greatest width of the female body (a–h), and the representation of what should be half of the body (pubes to ground) as being closer to one-third the total length (e, f, g). a, Lespugue; b, Grimaldi “lozenge”; c, Kostenki no. 3; d, Gagarino no. 1; e, Willendorf no. 1; f, Laussel “woman with the horn”; g, Dolní Věstonice no. 1; h, Gagarino no. 3.

Under or variations of feminine morphology and reproductive histories in the style of these works (Dobres 1992b:252; Duhard 1991, 1993a, b; Nelson 1993; Pales and de St.-Pereuse 1976; Rice 1981, Soffer 1987). In fact, the consistent departures from nature seen in these early images involve basic structural alterations in the normal vertical and horizontal proportions of the human body (Pales and de St.-Pereuse 1976:68–73).

In human beings, half the body’s length typically lies below the level of the hip joint or crotch and half above. For the average woman, this vertical midpoint of the body also coincides with its greatest horizontal or lateral width. In the typical “lozenge composition,” however, while the vertical midpoint and greatest horizontal width continue to occur together, their intersection is unnaturally elevated to the level of the navel. This effect results from a general atrophy of the lower body wherein the distance from the crotch to the ground is typically
represented as about one-third of the total body length instead of half [Pales and de St.-Pereuse 1976:71].

The fact that the lower extremities of many early figurines are missing because of breaks raises legitimate questions about the frequency of this structural distortion. When specimens preserve their extremities, however, such distortions are almost invariably seen, and it is reasonable to assume, in the absence of any significant contrary evidence, that these proportions should be used in the reconstruction of specimens which have survived only as fragments. Among those which preserve their original length, only the “punchinello” from Grimaldi even approaches a correct anatomical height-width ratio, whereas the large Laussel relief (and probably the relief figures from Abri Pataud and La Mouthe as well), the Monpazier and Lespugue figurines from France, the Savignano and Chiozza pieces from Italy, the Willendorf from Austria, and Kostenki no. 3, Gagarino nos. 4 and 83-1, and Avdeevo no. 76, 77-1, and 77-2 from Russia [Delporte 1993a: figs. 19, 43, 49, 50, 61, 91, 97, 99, 128, 168, 173, 183–85, and 192] all represent the distance from crotch to ground as closer to one-third the total than one-half [Pales and de St.-Pereuse 1976:71]. The same structural distortion is perhaps even more consistently represented by the unnatural elevation of the vertical midpoint in these images.

Women today, regardless of race, weight, or reproductive history, do not have such disproportionate structural relationships between body parts. While Delporte recognizes the critical importance of understanding this generalized atrophy of the upper and lower body [1993a: 244, 275], he perpetuates an unfortunate assumption by seeking the explanation in “a psychological imperative which corresponds to a conception of women in the life and behavior of prehistoric man” [1993c:10]. Why speculate about psychological mechanisms before experimentally examining the material evidence of human vision?

We should not simply ascribe the “violation of certain
body proportions’ to the deliberate “accentuation” or “willful distortion” of female body parts [Gvozdovery 1989b; Delporte 1993a:259] before asking if a physical mechanism could be responsible for the “violations” observed. I contend that their origin lies in what all humans and especially expectant mothers can and cannot see when they look down at their own bodies.

The distortions in these first images are produced by three structural regularities inherent in the body as directly self-inspected but not necessarily observed from the point of view of other human beings. First, because it begins with the same fixed point of view, everyone’s experience of self-generated visual information has the same structure, including a distinctive canon of proportions, despite variations expressive of individual physiognomy, age, and gender. Second, because of the oblique angle of self-regard, self-generated information is always strongly foreshortened, and body parts close to the eyes project a proportionately larger image on the retina than those farther away. Both an invariant order of proportional relationships and foreshortened shapes are imposed upon human anatomy viewed egocentrically. In addition, many objective relationships between regions of the body cannot be directly apprehended, among them the true length of the lower extremities and the thickness of the torso, while otherwise prominent anatomical features such as the buttocks are virtually or completely absent from the visual field. Finally, since one cannot visually apprehend one’s own body as a whole, any image of self as an independent three-dimensional entity must be the mental combination or integration of the multiple viewpoints possible in direct visual self-inspection.7 Multiple viewpoints, having more or less finite if overlapping boundaries, are an inherent requirement of all [technologically unassisted] human self-inspection. Operating together, these structural regularities provide a material origin for the “lozenge composition.” Moreover, the discontinuous nature of the visual information thus produced about the human body and the sequence or order in which it is experienced may be relevant to the content and fabrication processes seen in other categories of female representations from the Upper Paleolithic such as “sketches” (ébauches) and “buttock” images.

Chronological and Geographical Distribution

In spite of many difficulties in dating, especially among finds from France and Italy, a consensus is emerging [but see Bahn and Vertut 1988:85; Soffer 1987:335–36] that the vast majority of these images were created in the middle Upper Paleolithic and are stylistically different from those of the later Magdalenian [Delporte 1993a:247; 1993b:243]. These first representations of the human figure are centered in the Gravettian assemblages (Upper Perigordian V3 or Noaillian) of France and related eastern variants of that techno-complex, especially the Pavlovian in the Czech Republic and the Kostenki in Russia [29,000–23,000 B.P.]. For convenience I shall label this style of image the Pavlovian-Kostenki-Gravettian [hereafter PKG] [Delporte 1993a:247; 1993b:225; Otte and Keeley 1990:579; Soffer 1987:344]. Images of this style are most often small-scale statuettes carved in stone, bone, and ivory, with a few early Pavlovian examples modeled in a form of fired loess [Vandier et al. 1989, Soffer et al. 1993]. They use the same materials and techniques and distinctive sculptural rendering of mass seen in animal sculptures from earlier Aurignacian sites at Vogelherd and Geissenklösterle [Hahn et al. 1977; Mellars 1989:362–63; White 1989:98] and from later Pavlovian sites at Dolni Věstonice, Moravany-Lopata, Pedmosti, Pavlov 1 [Delporte 1993b:247], and Kostenki 1 [Abramova 1967a, b]. This sculptural quality, seen also in strongly carved bas-reliefs of female figures from four French Gravettian sites [Laussel, La Mouthe, Abri Pataud, and Terme Pialat], contrasts sharply with the thoroughly two-dimensional nature of later Magdalenian engraved and painted human figures and animals commonly said to mark the “birth” of representational art [Delporte 1993b:243].

Magdalenian human representations are concentrated primarily between 15,000 and 11,000 B.P. [Magdalenian 3 through 6] and are stylistically different from this earlier activity. Most of them parallel in time the famous decorated caves of France and Spain and consist of sketchy engraved and painted “anthropomorphs,” which on the basis of an occasional erect penis and tuft of facial hair are considered males, and equally schematic but much more consistently rendered and far more numerous “profile” or “buttock” images, now almost universally seen as portraying females [Bosinski 1991; Delporte 1993a, b; Duhard 1993b; Feustel 1967; Rosenfeld 1977]. The consistency with which the more numerous buttock or profile images of females are rendered stands in marked contrast with the relative rarity and variety of the cursorily engraved and painted Magdalenian male “anthropomorphs.” This quantitative and qualitative differential in rendering males during the Magdalenian echoes an even more pronounced gender difference among the earlier images.

It must be emphasized that these two sets of human images are separated by as much as 10,000 years, and their reliance upon the second and third dimensions respectively shows that they follow different developmental trajectories [Conkey 1985:301]. The experience of art history demonstrates that the socioeconomic and cultural context supporting such formal vocabularies could be as diverse as those separating the abstract two-dimensional forms of Christian Romanesque and Byzan-
tine art from the naturalistic third dimension of pagan Greek and Roman sculpture.

Radiocarbon dates for the important eastern Gravettian or Pavlovian site of Dolní Věstonice in Moravia indicate that archaic forms of PKG-style images first emerge as early as 30,000 to 28,000 B.P. (Delporte 1993a: 212–13), with most dates falling into the 26,000 B.P. range (Delporte 1993b: 244). Other dates ranging from 24,000 to 21,000 B.P. for Kostenki 1 on the Don River in Russia (p. 245), 27,000 to 25,000 B.P. for Pavlov in the Czech Republic (p. 144), 23,000 to 21,600 B.P. at Abri Pataud in France (Movius 1977), and 25,000 B.P. for the Russian site Khotylevo support the conclusion that first-phase PKG image making clusters around one of two interstadials—the Tursac in the west and the Bransk in eastern Europe, from around 27,000 to 23,000 B.P. (Delporte 1993a: 184, 213; 1993b: 244; Soffer 1985).

While such precision may be unwarranted, absolute dating clearly indicates “a certain chronological homogeneity among sites” with PKG-style activity (Delporte 1993b: 245).

Geographically, most sites with PKG-style images are located in a 3,000-kilometer-long cultural corridor connecting the northern slopes of the Pyrenees with the river valleys of European Russia.8 To the south of this “female statuette zone” (Delporte 1993b: 244), notable late examples are known from Italy (Radmilli 1969), none have been found in Spain. The contrast between the wide geographical distribution of the early PKG style and the limited extent of the classical Franco- Cantabrian cave art during the Magdalenian demonstrates again the distinct natures of these traditions and argues against any “single cumulative, gradual trajectory of artistic development” capable of accounting for the “contexts” or “differential reproduction” of the various “systems of visual imagery” now understood as constituting the Upper Paleolithic record (Conkey 1983: 210–22).

To date approximately 40 intact or mostly intact figures in the PKG style have been published, and about twice that number of figures are known as fragments (Bisson and Bolduc 1994, Delporte 1993a, Gamble 1982, Pales and de St.-Pereuse 1976, Praslov 1985). The fragmentary and poorly preserved nature of much of the evidence and the fact that some sites yielded large numbers of finds whereas others are known only from individual pieces make it difficult to describe the geographical distribution of these images quantitatively. For example, more than 70 pieces have been identified from four eastern sites—Dolní Věstonice (6), Gagarino (8), Khotylevo (5), and Kostenki (53). Abramova (1967b) reports 47 fragmentary works, mostly heads, from Kostenki alone. Brasempouy and Grimaldi show similar concentrated activity, whereas only individual pieces were found at Moravany in the Czech Republic, Savignano and Chiozza in Italy, and Abri Pataud, Le Mouthe, Lespugue, Monpazier, Sireuil, and Tursac in France. Quantitative approaches become even more problematic if one also attempts to count possible variant and unfinished “sketches.” A safer indicator is the number of sites from which PKG-style images are known. On the basis of either stratigraphy or stylistic analysis, I identify such images at 24 Upper Paleolithic sites (see table 1).

Within the stylistic paradigm defined by these sites, regional variations do exist (Delporte 1993a, b). Furthermore, where an adequate sample is available, as in Russia, intra- and even intersite distinctions can be demonstrated (Gvozdover 1989b).

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8. While undoubtedly related to PKG-style images, Siberian figureines from Buret’ and Mal’ta near Lake Baikal, east of the Ural Mountains, are not included in this study because they are geographically removed (5,000 km from nearest Russian sites), stylishly different in form and content, and later than European examples (Abramova 1967b; Delporte 1993a, Graziosi 1960, Leroi-Gourhan 1968a, McDermott 1985).
“empirical variability” [Dobres 1992b:249] or true heterogeneity among these earliest works [Hadingham 1979a:220–225; Nelson 1993:51; Pales and de St.-Pereuse 1976:93; Soffer 1987:336] can be defended, however, only by ignoring a clear central tendency defining the style as a whole. General qualities and particular traits characterize all categories of cultural artifacts, and it is not necessarily a methodological mistake to speak “about both the diversity and homogeneity of prehistoric material culture in the same breath” [Dobres 1992a:8]. While accepting that “the unique features of Palaeolithic art are . . . vital clues to any attempt at interpretation” [Layton 1992:219] and that PKG-style figurines, “like any other archaeological object, contain enumerable variables that can be quantified and compared,” one must also acknowledge a distinctive approach to form and content that is more than “just one subset of superficial . . . attributes” associated with the nude female body [Soffer 1987:336]. Real female bodies do not taper top and bottom, carry their buttocks above the tailbone, or possess the other distortions and anatomical omissions which define the PKG style.

Since stone tools from open-air Russian sites have long been recognized as related to industries from Central Europe [see Gvozdoover 1989b:32; Praslov 1985:182], it is quite probable that their human figurines are also related. For Delporte the common lithic characteristics underlying regional variations “imply, if not homogeneity among European Gravettian groups, at least a measure of similarity worth recognizing” [1993b:244]. As in the lithic assemblages, the “stylistic unity” and “figurative paternity” seen between “remarkably homogeneous” PKG-style images from Russian sites at Kostenki, Gagarino, Avdeev, and Khotylevo and those from western Gravettian and Central European Pavlovian sites reveal common selective processes. There is no theoretical impediment to studying the context of such choices in the forms of their representational art. At the core of the PKG style lies a set of departures or deviations from an otherwise anatomically accurate representation of the human body [Abramova 1967b:67; Delporte 1993a:244, 259, 275], and according to Gvozdoover this “stylistic deformation of the natural body reveals a common tendency throughout Europe” [1989b:79].

**Previous Interpretations**

Much that has been written on the significance and function of Upper Paleolithic female images involves some analogical or symbolic hypothesis as to why they depart from an otherwise objective realism. One enduring approach resolves the conflict by identifying this recurrent incongruity with anomalous or unusual categories of visual information. Whether scholars have found the Negroid race in Europe [Piette 1902:773], extremes of the female life cycle [Rice 1981], enlarged or hypertrophic breasts [Harding 1976], or obesity and the physiological consequences of maternity [Duhard 1993a, b], the possibility of observational exactness has exerted perennial appeal—although sometimes with peculiar consequences. For example, Piette [1902:775] saw enlarged buttocks in a piece from Grimaldi and institutionalized a long-lasting fascination with the unusual condition of steatopygia. Although having little in common beyond ampleness, the posteriors of subsequent discoveries at Willendorf and Laussel in 1908, Lespugue in 1922, and Savignano in 1924 fueled the lamentable tendency to see all prehistoric peculiarities of the buttocks as steatopygous.

Early this century, ethnographic observations encouraged the equally pervasive idea that all prehistoric art was involved with hunting and fertility magic [Reinach 1903]. Originally focused on parietal art, the hypothesis was extended with subsequent recognition of humans among the animals. Barely recognizable Magdalenian “anthropomorphs” with animal and human features and exuberantly female PKG-style figurines were thought alike ritually engaged in ensuring the success of immediate and future hunts [Bégouën, 1939b; b; Breuil 1952; Reinach 1903; Saccasyn-Della Santa 1947:9–21]. With or without the magical element, the idea that PKG-style exaggerations signal a symbolic interest in fertility and fecundity has been very influential [Abramova 1967b, Burkitt 1934, Pales and de St.-Pereuse 1976, Ucko and Rosenfeld 1967].

Passemard’s 1938 demonstration that true steatopygia is in fact rarely represented had the perverse consequence of only strengthening this idea that the enormous hips [and breasts] of female figures had to be symbolic. When the fascination of male scholars with such attributes fused with magico-religious, ethnographic, and even Freudian ideas [Neumann 1955:98], a host of analogical possibilities arose, ranging from the aesthetic ideal of obese women [Schuchhardt 1926] and ethological signals of “biological readiness” [Guthrie 1984:59] to prosaic yearnings for erotic stimulation and other masculine sociosexual drives [Absolon 1949:204; Barton 1940:131; Jelinek 1988:220; Levy 1948:58; Luquet 1930:110–11; Zotz 1955]. For some it seemed obvious that the bulging volumes of PKG-style figurines “were made, touched, carved, and fondled by men” because “clearly no other group would have had such an interest in the female form” [Collins and Onians 1978:12–14]. For another it was equally self-evident that this “early erotica” bore “a great resemblance to the images portrayed in men’s toilet stalls” and must be “an art made by men about male preoccupations” not unlike that seen today in men’s magazines [Guthrie 1984:59–71]. The emphasis in female images on sexual traits rather than personal features such as the face was seen as a logical consequence of another perceived origin for animal art—as hunting trophies. As trophies depicting acts of rape, kidnap, or murder, PKG-style images would have epitomized masculine status symbols by representing “brave acts among males” to promote group solidarity [Eaton 1978; 1979:7].

Feminist scholars have soundly critiqued the methodological limitations of the “decidedly androcentric” paradigm [Dobres 1992b:245] and “hierarchized and gen-
dered subject-object relationship” [Mack 1992:235, 237] operating in these and other male-centered analogical approaches. I can only echo Dobres’s conclusion that the attempt “to ‘naturalize’ [male] heterosexual interests specific to Western industrial society” by imposing them onto female images created 30,000 years in the past “is without merit” [1992b:248].

Finally, many others find the cause for the same apparent distortions of the female figure in limitations imposed by the original material [Abramova 1967b:66; Breuil and Peyrony 1930:45; Clottes and Cérou 1970:435; Graziosi 1939:161]. A useful review of such arguments is found in Duhard’s Réalisme de l’image féminine paléolithique [1993b:157–59], and although his claims for the accurate representation of physiological histories in all Upper Paleolithic female images exceeded the available evidence, particularly for Magdalenian pieces, his conclusion that their attributes reflect a “deliberate choice” and not the constraints of materials is persuasive.

Toward midcentury the enthusiasm for ethnographic hunting-and-fertility-magic interpretations gave way to a concern for “context” in Paleolithic art. Controlled excavation at rich Russian sites found PKG-style figures in the domestic context of hut floors, storage pits, and niches [Hancar 1939–40 and Efimenko [cited in Abramova 1967b:81] to see female ancestor images at the core of a matrilineal clan organization. The difficulties of inferring intent from the archaeological context of these and later Russian discoveries are discussed by Gvozdoýer [1989b:70–78], while discussion of the “localational tendencies” preserved in western sites can be found in Delporte [1993a:259–61] and Hahn [1993:236–37]. In spite of the meager evidence preserved from many early excavations, context, writ large to include all diachronic and synchronic variation, continues to dominate questions of function and motivation.

Contemporary cognitive and information-exchange models have also exerted their influence [Gamble 1982, 1993, 1986]. Although the microscopic evidence which Alexander Marshack thought revealed lunar calendars has been challenged [d’Errico 1989, White 1982], his hypothesis that Upper Paleolithic art represented seasonal and other environmental periodicities as part of a stored, time factored symbolic system remains a viable possibility. Marshack calls specific attention to the probable operation in Upper Paleolithic cultures of “stored equations . . . [about] the primary processes and functions of woman—including maturation, menstruation, copulation, pregnancy, birth, and lactation” [1991b:282]. Along with Conkey, who suggested that PKG-style figures might have been motivated by improvements in “obstetric practices” or “neonatal care” [1983:222], Marshack deserves credit for being among the first to recognize that female images could represent processes of primary concern to the physical lives of women.

The widespread worship of a mother goddess attested by the oldest written records and the prevalence of female imagery during the intervening Neolithic have been seen as evidence for the religious use of earlier Upper Paleolithic female figures. Admittedly, there are suggestive iconographical links, such as similar [but not identical] “disproportionate sexual attributes” [Goldman 1960–63:8], but there has been no conclusive demonstration of formal linkage [McDermott 1987]. Gimbutas argues persuasively for such a link [1981, 1982], but as do most who make such claims she usually proceeds as if the link were already established [Mellaart 1967, 1975; Stone 1976]. Unfortunately, as Ucko pointed out in 1968, it is impossible to eliminate any number of equally plausible sacred and/or profane functions if the apparently distorted attributes of PKG-style images are indeed arbitrary symbols for which the code has not been preserved.

By limiting itself to physical processes known to be the same today as during the Upper Paleolithic, my hypothesis minimizes the projection of a modern subject’s ideology into prehistory [Mack 1992:239]. Unlike an analogy, which only assumes that “the same causal mechanisms that operated in Upper Paleolithic Europe” also operate today [Layton 1992:213], it can be experimentally tested. How and what a contemporary woman can or cannot physically see of her own body without the assistance of technology can be objectively determined. For women, palpable proof or refutation could begin with their own observations, whereas men can only approximate or simulate what a woman sees.

Stylistic Variability and Choices in Visual Information

An unstated assumption of most previous efforts at understanding PKG-style images is that they deviate from ordinary anatomical reality for some symbolic or psychological purpose. Thus, the parts of the female body involved in reproductive or erotic activities are accentuated or enlarged to symbolize societal values, whereas the individualizing and self-actualizing components of face, hands, and feet are neglected because they are insignificant to the message [Giedion 1962:434; Gvozdover 1989b:51; Neumann 1953]. The appeal of such an idea is understandable, since individually and as a class PKG-style images reflect choices in the information they represent. First, as previously stressed, some parts of the female body do indeed appear enlarged and others neglected or distorted. Why these specific departures from objective human physiognomy and not others? Furthermore, once chosen, what cultural mechanism sustained the impressive constancy of the PKG style through time and space? Why are the lower extremities of both French and Russian pieces too short to be anatomically correct? Why are the buttocks of female statuettes from widely separated strata elevated [fig. 3]?

Secondly, a striking selectivity in gender exists. An examination of the originals reveals that only one of the six figures long claimed as males in the literature for Pavlovian-Kostenkian-Gravettian or earlier levels can
FIG. 3. PKG-style figurines in profile, showing common massing of three-dimensional forms, including elevated buttocks relative to tailbones (a, b, c). a, Grimaldi “yellow steatite statuette”; b, Willendorf no. 1.; c, Lespugue; d, Gagarino no. 3; e, Gagarino no. 1; f, Kostenki 1 no. 3.

withstand even cursory scrutiny. Gvozdover (1989:56) also reports a male from Avdeeo and Praslov (1985:186) one from Kostenki. If confirmed, these will be the first of this gender ever found in eastern Europe [Abramova 1967a, b].9 If men were involved in creating human images at this time, why are virtually no males represented?

In 1902, Piette decided that two fragmentary lower bodies from Brassempouy, originally published in 1895, were males. Kühn (1936:226), Passemard (1938:20), Saccasyn-Della Santa (1947:162, 199), Leroi-Gourhan (1968a:123), Pales and de St.-Pereuse (1976:pl. 176), and Duhard (1993b:36, 39) have continued to identify males at Brassempouy. After examining these pieces, I join Luquet (1934:431) in concluding that, whatever the artist’s original intention, the pubic nodes of these fragmentary pieces lack definition and do not certainly depict the penis.10 If unfinished, such undifferentiated protuberances could easily have been destined to become either the generalized mons veneris commonly seen in early female statuettes or the developed vulva found in a few specimens [McDermott 1985:199–202]. On the basis of what we know about the development of later, better-documented art-historical period styles, these Brassempouy specimens are ordinary female images.10 Delporte did not see these nodes as male members in the original 1979 edition of his important study of prehistoric female images, but, following Duhard’s (1993b) reexamination, he now finds the two pieces “convincing masculine figures” [Delporte 1993a:26–27; 1993b:247].

9. According to Praslov (1985:186), “these are only suppositions since they do not have genital organs.”
pouy pieces could with equal logic be considered unfinished examples of the far more numerous PKG-style female figurines with which they share many attributes.

Lalanne’s 1912 identification of a profile male archer in bas-relief from Laussel has likewise been generally accepted in the literature (Jelinek 1975:412; Kühn 1936:232; Lalanne and Bouyssonie 1941–46:138; Leroi-Gourhan 1968a:123; Luquet 1930:17; Saccasyn-Della Santa 1947:164), although the image possesses no primary or secondary sexual characteristics. Pales labeled it sexually indeterminate in 1976 (pl. 177–55), and Duhard subsequently interpreted it as a juvenile female (1993b:73). Compositional this one-of-a-kind work has more in common with variant PKG-style statuettes from Tur- sacram and Sireuil thought to represent profile views of ado- lescent females than with any known male representa- tion (Delpo 1960).

In 1971 Hahn described a “male” statuette that had been reconstructed from badly deteriorated fragments of mammoth tusk originally excavated in 1939. This very poorly preserved ivory figurine from Hohenlehen-Städel, whose over 200 fragments have gone through three con- figurations (1969, 1983, and 1988), is said to resemble the male found at Brno (Delpo 1993a:152; Hahn 1971:241), but this is a spurious similarity. Arriving indepen- dently at our conclusions, I in 1985 and Schmid in 1988 found it far more reasonable that the piece originally represented a female. The penis identified by Hahn (1971:237) is but a serendipitous silhouette produced by differential weathering of the concentric ivory lamelae in the tusk; it is not intentionally carved (McDermott 1985:218).

In 1939 Absolon identified as male a fragment of fired loess excavated at Dolní Věstonice. A reexamination of the original in the Moravian Museum in Brno renders dubious even its humanness. An active imagination is needed to see a lower torso with a diffuse truncated mound located between the stumps of what might once have been legs. The “penis,” for example, is nearly equal in diameter to one of the legs, and the essentially shapeless piece actually resembles the front or rear legs of one of the numerous broken animal statuettes found at the site. Of the approximately 3,700 modeled “ceramic” fragments from Dolní Věstonice, the representational intent of more than 3,000 cannot be determined, but among the remainder there are 77 nearly whole and 630 broken animals compared with only 14 fragments of hu- man figures (Vandiver et al. 1989). What Absolon saw as a penis is more likely the stump of either an animal’s head or tail and its front or rear legs than a one-of-a-kind representation of a human male (O. Soffer, personal communication, August 8, 1988).

The muscular fragment of an ivory figure from Brno, also in the Moravian Museum, with its more correctly proportioned stump of a penis at the base of the torso, does, however, create a realistic impression of masculin- ity. The head, torso, and left arm of the Brno man is all that survives of the only statuette found in an Upper Paleolithic burial. A unique find with no known sty- listic antecedent or descendant, it can certainly be ac- cepted as Pavlovian without formal conflict.

While claims continue to be made for this or that isolated piece [Lalanne and Bouyssonie 1941–46:139; Marshack 1988], the fact remains that only one male image can be convincingly identified in the Pavlovian- Kostenkian-Gravettian flowering of European Upper Pa- leolithic artistic activity. This stands in marked contrast to the unequivocal sexual realism and extensive stylistic membership which characterize female figures. The refine- ment of form and balance and the consummate mas- tery of materials observed in better-preserved PKG-style figurines speak to a long tradition of female image mak- ing and an early investment of physical and aesthetic energies never seen in Upper Paleolithic male images.

The scarcity of male images is inconsistent with con- temporary claims of the heterogeneity of early human images. The argument of Leon Pales that there was far more diversity of style and gender than has been recog- nized is particularly well known. According to Pales, the undue attention given the blatant sexuality of the so-called Venus figurines has caused us to see similar attributes everywhere. On the basis of line drawings il- lustrating 480 “human” images assembled for his study of engraved figures from the French site of La Marche (Pales and de St.-Pereuse 1976), he concludes that nu- merous Upper Paleolithic representations of males were also made, with most images actually being sexually in- determinate. However, it is only when works in all me- dia from all regions of Europe are lumped with those from the much later Magdalenian that this conclusion can be defended. Not only does Pales ignore basic tem- poral and formal distinctions and treat the immense 20,000-year span of the European Upper Paleolithic as a cultural whole but he counts items without regard for stylistic attributes or skill of execution. Shapeless one- of-a-kind lumps and incomplete fragments are attribut- ed equal quantitative significance with stylistically re- lated and intact works of rare workmanship and beauty. By collapsing all images ever thought to represent a hu- man figure into a single pool, he creates a nonhomoge- neous sample incapable of supporting his conclusions (McDermott 1991). What might be defended as a statisti- cal description of the Upper Paleolithic in its entirety actually obscures the dominant representational form from 39,000 to 23,000 B.P.

In his corpus of 480 figures, for example, Pales classi- fies 242 as “realistic” and only 238 as “humanoid.” Thus, almost half look so little like human beings that accuracy requires they be given a separate designation. Of the 242 images classified by Pales as realistic, 25 (10%) are identified as males and 97 (40%) as females; the remaining 120 (50%), lacking primary or secondary features of gender such as genitalia, breasts, or beards, are classified as sexually indeterminate. How “realistic” is a human image if it lacks such fundamental details, and how valid is a classification system which accepts all suggestive forms as evidence of common content [re- alistic humans] without regard for cultural context or manner and style of representation?

Of the 25 males identified by Pales, 21 are two- dimensional works dated to the Magdalenian, thousands of years after the spread of PKG-style images. The male-
ness of three of the remaining four [Brasempouy, Hohlenstein-Štädel, and Dolni Věstonice] is also question-
able, as we have seen. In addition, of Pales’s 25 realistic males, 12 are from La Marche, while 10 of the remaining 13 sites producing such images are also located in the classic Franco-Cantabrian region of Magdalenian art.

The contemporary vogue of emphasizing representa-
tional diversity among PKG-style images is not sup-
ported by the evidence. By pointing to the natural sym-
metry of the sexes to challenge preexisting biases, Pales
did call needed attention to the way in which gender is
actually represented among PKG-style images. How-
ever, much needless confusion about stylistic heteroge-
nenity or homogeneity in the Upper Paleolithic would
have been avoided if students of gender in prehistoric
images had applied principles learned from later, better-
understood styles of representational art. Prehistorians
have too often failed to recognize that form is more in-
dicative of a common cultural tradition than content.
Ignoring this basic tenet of stylistic classification has
led to an undue acceptance of one-of-a-kind “male” im-
ages to the point of creating a category of masculine
representation where none exists. As Delporte observes,
the wish to find males participating in the first tradition
of human image making obscures the obvious fact that
the complex, multivalent message “of the ‘Gravettian
group has to do with woman’” [Pales de de St.-Peruse 1976:
96–97] or when the thorax is said to be “normally pro-
portioned” [Delporte 1993b:245]. Only careful compari-
sion of image with the anatomical reality it “re-presents”
can bring order out of the subjective interpretations
which lace the literature on this subject. Furthermore,
an artist’s success in capturing the appearance of exter-
nal visual information can and should be objectively
evaluated. Hastily executed one-of-a-kind works are not
statistically or culturally equivalent with highly fin-
ished pieces making up a clear stylistic tradition of rep-
resentational effort. To assume otherwise is to ignore
the mechanisms of culture that train artists and sustain
the chronological and geographical spread of a style.

Indeed, a classification system sensitive to the ba-

ics of art-historical style dramatically alters Pales’s
counts of male and sexually indeterminate PKG-style
images. Males are, as we have seen, virtually absent
from the record. Further, if only a few of the so-called
sketches, which range from admittedly conjunctural
roughed-out “blanks” to pieces lacking only the final
definition of breasts and abdomen (see fig. 4), are recog-
nized on the basis of numerous shared formal attributes
as unfinished female images (rather than being consid-
ered sexually indeterminate), the dominance of female
over male representations during the opening millenia
of the Upper Paleolithic becomes overwhelming. An or-
organized tradition of representing the male figure has yet
to be identified for the early and middle Upper Paleo-
lithic, and when males do emerge during the Magdalen-
ian their representational accuracy seldom if ever ap-
proaches that encountered in PKG-style female images.

Comparing Modern Bodies with
Prehistoric Artifacts

There is an obvious relationship to be seen between
the stylistic attributes of Upper Paleolithic representa-
tions of the female body in general and PKG-style images
in particular and the structural regularities of form and
content contained in those minimal viewpoints needed
by a woman to see her own body. Personal experimenta-
tion will demonstrate that, without external technologi-
cal assistance, a reasonably inclusive inventory requires
at least five or six primary vistas: (1) head and face, (2)
superior anterior or upper frontal surface of body, (3)
inferior anterior or lower frontal surface of body, (4)
inferior lateral or lower side surface of body, and (5)
inferior posterior surface of body, including (a) under-the-arm
views and (b) an over-the-shoulder view.

Facial heads. Although the seat of visual self-
awareness, the objective appearance of the head and
face is simply not visible from a self-viewing perspec-
tive. This logically explains why—although there are re-
gional variations in shape, size, and position in the heads
of PKG-style pieces—virtually all are rendered without
facial features and most seem turned down toward the
body as if to bring it into view. The absence of direct

Some female images could have been “made quickly and
crudely for a limited time and use” [Marshack 1991a:287],
whereas others appear to have been left unfinished at some earlier
stage of a process that would have eventuated in a PKG-style figu-
rine. In male images, other than the most general commonalities
of technique and subject matter [such as prognathous snouts], there
have been little success in identifying any recurrent formal or stylis-
tic attributes. Nor is any internal progress toward representational
accuracy observed in this genre of image [Leroi-Gourhan 1968a].

Facial features of any kind are rarely encountered. The extent
to which the faces of figurines from Kostenki [no. 83-1] and
Avdeev [no. 77-1] are developed appears to be unique in the record
[Delporte 1993b:figs. 173, 184; Praslov 1985:figs. 3, 5], although paral-
lels can be drawn between them and even more shadowy and in-
complete forms seen at Monpazier [Clottes and Cérou 1970:fig. 1]
and on the Grimaldi “undescribed figurine” [Delporte 1993b:fig.
94]. The position of the eyes is perhaps indicated in the “black
Venus” no. 1 of Dolni Věstonice [Marshack 1991a:fig. 171] but at
most suggests only an “earry and ghostly ‘spirit’ face” [p. 177].
The Peabody Museum “Janus” figurine from Grimaldi has rough
indentations for eyes and mouth, and even more shadowy possibili-
ties exist for Saviugnano and figurine no. 2 from Gagarino
[Delporte 1991a:figs. 90, 97, 190]. The absence of facial features on the six
recently rediscovered statuettes from Julienne’s early excavations at
Grimaldi is consistent with prior observations [Bisson and Bolduc 1994].
Given the prominent position of facial information in our a-
fensive perception of other human beings, its general absence
from PKG-style images supports the autogenous hypothesis. How-
ever, certain self-viewed facial information is always available, and
this may explain why the best-executed Upper Paleolithic faces
are found on disembodied heads from Grimaldi, Brasempouy, and
Dolni Věstonice [Delporte 1993b:figs. 7, 95, 143] and not on full
figures. While none of these have a full inventory of facial features,
all do have large, prominent noses, and the reader can verify that
visual knowledge may also explain why the most commonly encountered form of head is a generalized round shape vaguely reminiscent of an emergent mushroom "cap" or "button." Not only is this form found on the best-preserved French, Austrian, and Russian figurines but it predominates among fragments, strongly indicating that most missing heads should be similarly reconstructed [Abramova 1967b:pls. 9 and 10]. Its stylistic dominance is further supported by its presence on several variant figurines made from mammoth phalanges or metacarpals, thought to represent squatting pregnant women, from Předmostí and Avdeevo [Jelinek 1975:figs. 642, 643].

With the head held upright, the body is absent from the visual field. This discontinuity, in conjunction with the elemental fact that the human eye and self-consciousness alike reside in the head, reinforces the identification of numerous European Upper Paleolithic pieces, sometimes consisting of little more than a rounded button or caplike "head" at one end of a rod or tusk, as either abbreviated or incomplete human figures. Three lines of evidence support this possibility. First, similar undefined button-like heads at the ends of suggestively shaped rods of Aurignacian provenance, such as...
as those from Abri Cellier and Vogelherd, could be earlier efforts at creating a full-length image of the human body (Delporte 1993a:fig. 121; White 1989:98). Second, on the basis of decorative motifs shared with finished figurines, Gvozdover has convincingly identified Kostienkian rods with stylistically similar rounded ends as abstracted or schematic female images (1989a). The third is the frequent identification of what are seen as preliminary sketches that could easily be figurines interrupted or abandoned at some stage prior to completion (McDermott 1985:270). In fact, Praslov (1985:182) claims that sufficient unfinished examples have been found on the Russian Plain to allow him to follow the different stages in making eastern PKG-style figurines from "initial cutting to final polish." The existence of a common fabrication process which begins with the major horizontal divisions of the body rather than with its outline or silhouette could be logically related to the sequential bending of the body necessary for direct visual self-knowledge.

Sometimes these sketches are little more than tusks with a possible head differentiated at the narrow end, such as Pavlov no. 32460 (B. Klima, personal communication, August 9, 1988) and Avdeevo no. 4 (Abramova 1967b:pl. 27), or ivory rods with a button or caplike "head" at one end as seen in earlier Aurignacian examples (see fig. 4). The latter category includes the "doll" sketches from Brassempouy, one of the sketches reported from Gagarino (Delporte 1993a:figs. 13, 187), and a similar piece from Pavlov (Marshack 1991a:fig. 163). Although long associated with finished female statuettes, such pieces actually possess no primary or secondary sexual characteristics. Marshack has argued that these and other sketches were made rapidly for a specific one-time use (1991a:287) and never intended to be finished. Although logical, such a conclusion implies a knowledge of motivation which we in fact do not have. It would be best to restrict questions of procedure to those pieces that clearly reflect a common process. What we know is that some pieces definitely represent unfinished female figurines at different stages of completion and that ivory rods or tusks with rounded buttons or caplike "heads" could represent an even earlier stage in this fabrication process. The unusual ivory rod containing two figurines joined at the head from Gagarino, for example, clearly shows different stages of carving in each figure (Tarassov 1971), with the shorter figure having legs and abdomen more differentiated than the taller. A comparable "in-process quality" is clearly seen in Kostienkian statuette no. 5 and Khotylevo no. 3 in the east and the Brassempouy "girl" in the west (Delporte 1993a:figs. 11, 170, 203). Similar roughed-out development is seen in fragments of the lower body preserved at Brassempouy and Gagarino (Delporte 1993a:figs. 6, 196).

It is possible that fabrication of a human figure involved first differentiating a "head" from a "body" of material and then following an essentially logical time factored sequence which might remain unfinished. Both the autogenous hypothesis and the evidence of these pieces, if they are unfinished, predict that this emergent process began with the head, the seat of visual self-awareness, and then employed the sequential movements necessary for complete visual self-inspection with attention focused last on the central parts of a woman's body involved in reproduction. Pregnancy and self-inspection both involve sequential stages whose typical time factored progress might well be revealed in the processes preserved in unfinished pieces. During pregnancy, some parts of the body change while others remain the same, and the parts which undergo the most change appear to be defined last in the fabrication process.

2. Superior anterior or upper frontal surface of body. Standing erect with the head bowed presents to a woman's eye a strongly foreshortened view of the upper frontal surface of the thorax and abdomen, while the breasts, being close to the eyes, will loom large in the visual field. Creation from this perspective provides a parsimonious explanation for the voluminoseness and distinctive pendulous elongation routinely observed in the breasts of PKG-style figurines. When looked at from above, as a woman observes herself, the breasts of PKG-style figurines assume the natural proportions of the average modern woman of childbearing age. For example, the dimensions of the breasts of the oft-illustrated Venus of Willendorf are comparable to those of a 26-year-old mother-to-be with a 34C bust (see fig. 5). When foreshortened from above, even the apparent hypertrophic dimensions of the Venus of Lespugue and the best-preserved figurine from Dolní Věstonice enter into a reasonably normal, albeit buxom, range (see fig. 6). In addition, the fact that the true thickness of the upper body cannot be experienced by self-viewing is logically consistent with the abnormal thinness seen in the torsos of many PKG-style figurines (see fig. 3).

When viewed from above, most other apparent anatomical distortions or omissions of the upper body undergo similar realistic transformations. For example, PKG-style figurines commonly have what seems to be only an ill-proportioned, sharply tapering fragment of the upper arm represented, with the forearm merging into the side of the body. However, in looking down with arms at the side, a woman does see only the foreshortened front surface of her upper arm, with the forearm normally occluded below the breasts. Another convention explained by the foreshortening and occluding effect of a self-viewing perspective is the unnaturally large, elliptical navel located too close to the pubic trian-
Fig. 5. Autogenous visual information of the upper body. Top, photographic simulation of what a six-months-pregnant 26-year-old Caucasian female of average weight sees when looking down while standing erect; bottom, same view of Willendorf no. 1 (cast).
FIG. 6. Oblique aerial views of front body surfaces. Top, 30-year-old Caucasian female, four months pregnant; bottom, same view of figurine from Lespugue (cast).
gle in several figurines. The annular depression surrounding the navel proper, seen obliquely from above, projects just this size ellipse, and when pregnant a woman cannot see the abdomens below the navel.

Also, the dual role of hands and arms as both agent of fabrication and model could relate to their variability and infrequent representation. Being in constant motion, they have no fixed point of regard in the visual field and perhaps in human memory. When arm and hands are crossed over the breasts, they present their narrowest aspect to the eye in an edge-on view, which suggests a rational origin for even the unusual thin “fili-form” or threadlike arms of the well-known pieces from Lespugue and Willendorf.

3. Inferior anterior or lower frontal surface of body. A correctly foreshortened representation of the lower body seen from above would shrink or narrow toward the feet as if its true height had been compressed. Only the autogenous hypothesis renders sensible the compressed stature (or atrophy) of the lower body, including the diminutive feet, preserved in some PKG-style figurines. The lower body and feet are optically correct for the point of view employed in their representation.

It is also a fact that for a pregnant woman, inspection of the upper “half” of the body terminates at the navel with the curving outline of the distending abdomen. She must bend at the waist to bring her lower “half” into view. Thus the gravid female’s direct visual experience of her full-length body involves combining two discrete views which meet at the abdomen near the level of the navel—which also, contrary to anatomical fact, appears to be the widest part of the body. When she looks down over the intervening mass of her growing abdomen, she does not see that the vertical midpoint and greatest physical width of her body really intersect at the level of the hip joint. The apparent misrepresentation of height and width routinely seen in PKG-style images is actually a sensible symmetrical combination of these otherwise discontinuous views. The necessity of uniting the two views from above and below the intervening mass of the woman’s pregnant abdomen apparently produced the recurrent “lozenge composition” and the apparently incorrect proportions on which it is based [see fig. 7].

4. Inferior lateral or lower side of body. When one rotates at the hips and raises the arm to look down obliquely in front of the shoulder, one sees the side of the body as expanding from the lower torso toward the buttocks before contracting as the eye encounters the more distant rectus femoris and vastus lateralis muscles of the thigh and the bulging gastrocnemius of the calf. The feet may or may not be visible, often being occluded by the intervening body, particularly the more rearward the angle of regard. The apparent cantilevering of the rectus femoris in front of the lower gastrocnemius is identical with the “bent-knee” posture seen in numerous otherwise erect Upper Paleolithic images of the human figure [see fig. 8]. This oblique outline of the lower side not only coincides with the arrangement of muscles seen in this region for PKG-style images, but its content is identical with the information contained in the so-called buttocks or profile image which dominates the Magdalenian [Rosenfeld 1977:90; Bosinski and Fischer 1974; Bosinski 1991]. The typical absence of the upper
body, shoulders, arms, and head from the visual field when one looks down upon the inferior lateral surface of the body is congruent with their conspicuous absence in this later category of image.

5. Inferior posterior surface of body. There are only two ways to bring the remaining dorsal surfaces of the body into direct vision—either by continuing to rotate the line of sight under the arm, thus bringing the caudal aspects of the back into sight, or to crane one’s neck to look back over the shoulder. It is the autogenous form and content of these two approaches which renders comprehensible two categories of supposed anatomical distortions previously recognized in PKG-style female images (see fig. 9): the rarely encountered rearward or posterior fatty enlargement of the buttocks properly called steatopygia and the far more commonly encoun-
tered lateral deposits of adipose tissue resembling fat thighs or riding jodhpurs known as steatotrochanteria or steatomeria [Duhard 1988, 1991; Regnault 1924].

5a. Under-the-arm views. Depending on the effort expended in rotating and looking under the arm, the view will either be limited to a lateral segment of the lower back above the sacral triangle [tailbone] or, with greater exertion, may also include a foreshortened outline of the upper buttock below the tailbone. With or without maximum rotation, the view of this region will be dominated by the lateral bulge of the glutei medii, while the more distal glutei maximus are either occluded entirely (with minimal rotational effort) or seen only as a foreshortened fragment [with greater rotational exertion]. Thus, judging by the position of the sacral triangle, what have often been seen as unnaturally large, elevated buttocks are in fact realistic renderings of the glutei medii, properly positioned above instead of below the tailbone in the self-viewing visual field.

Intergroup variation in the rotational effort expended in self-inspection could thus explain not only the general lateral displacement of mass that has been called steatotrochanteria or steatomeria but the observed continuum of regional variation in this “condition” as well. Many Russian pieces appear to have unnaturally long loins, flanks, or glutei medii above the sacral triangle and atrophied or disproportionately short buttocks below [Leroi-Gourhan 1968a:520], as would be consistent with considerable rotational effort. Less effort produces the complete occlusion of the buttocks below the tailbone, and this is the key to understanding an even more enigmatic distortion found farther west—the representation of supposedly “upside down” buttocks [Luquet 1934:434–35]. In the well-known ivory figurine from Lespugue, the figurine in yellow steatite from Grimaldi, the shattered ivory torso from Brassempouy known as the “dagger handle,” and a fragment of fired clay found by Klima at Pavlov, a bar or bridge of material presumably representing the tailbone lies below the apparent gluteal cleavage separating the buttocks rather than above as would be anatomically correct [see figs. 3a, c]. From a self-viewing perspective, what has been seen as the gluteal cleavage between the buttocks emerges instead as the furrow of the lower spine separating the lateral glutei medii. The actual gluteal groove and the buttocks proper, which objectively extend below the tailbone, have not been represented at all, since they are in fact completely occluded in anything less than the maximum possible rotation of the head and eyes to look under the arm. Figurines with what appear to be “upside down” buttocks actually correctly represent what can be seen in an under-the-arm view. As with pieces without faces and with forearms which disappear underneath the breasts, the general principle seems to be that what cannot be seen tends not to be represented.

An intermediate regional variation in self-inspection routines of the posterior is perhaps preserved in the arbitrary horizontal notch located immediately above

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**Fig. 9.** Tracings of photographs of PKG-style figurines seen from above, showing lateral displacement of posterior masses (a, c, d) and rearward projection (b). From Grimaldi, a, “yellow steatite statuette”; b, “punchinello”; c, “lozenge”; from Brasempouy, d, “dagger handle.”
the bottom edge of the atrophied "buttocks" of the Venus of Willendorf. This blunt geometric feature, which makes no anatomical sense from any point of view other than the self-viewing, is optically transformed into a highly naturalistic foreshortened image of the lower back above a properly positioned tailbone carried above an oblique sliver of foreshortened buttocks [see fig. 10].

5b. Over-the-shoulder view. Finally, a more difficult and presumably less frequent route of dorsal self-inspection involves sharply rotating the head, thrusting the chin over the shoulder and peering obliquely downward out of the corner of the eye. It is this view which accounts for the steatopygous form of fatty enlargement. In an over-the-shoulder view the dual masses of the glutei maximus project rearward from the body into the field as in steatopygia, complete with the deep gluteal cleavage separating the buttocks, seen in works from Savignano and Grimaldi ("the punchinello") and Monpazier [see fig. 9, b]. Again what had been puzzling extremes of human anatomy become surprisingly realistic when considered from the probable point of view employed by their creators [see fig. 11]. Thus, PKG-style images show the most consistent realism or organic verisimilitude when conscientiously examined from a retinal angle and distance that mimics those required for inspecting one's own body. What have been seen as gross corpulence, puzzling anatomical omissions, and exaggerated distortions become instead orderly conventions for representing the foreshortened configuration of subjective optical reality.

Conclusion

The evidence supporting the autogenous hypothesis is striking, but further examination of this hitherto ignored category of information is required to establish its ultimate validity and scope. The basic experimental question remains simple. Is the physical point of view represented in PKG-style female figurines that of self or other? Here at least is a hypothesis which can be tested, although certain evidence should be treated cautiously. Camera lenses, for example, have properties not found in the human eye (and vice versa), and direct comparisons between the original artifacts (or their casts) and one's own anatomy is the ideal procedure. [Caution is urged to avoid injury to joints and muscles unaccustomed to such maneuvers.] I predict that, when others have viewed the better-preserved and "finished" PKG-style pieces from the point of view that only women have of their own bodies, they will see, as I have, a realism in representation which sometimes approaches scientific exactitude. This isomorphic relationship with nature is best seen when the masses of both prehistoric images and contemporary women are viewed from comparably circumscribed "oblique" angles of "self"-regard. I perceive the strongest realism when the pieces are held relatively close to the eyes so that the autoscopic projection of one's own body is wholly or in part replaced by that represented by the figurine. This "masking" or "replacement" possibility affords a point of departure for future studies.

From a self-viewing perspective, PKG-style figurines represent normally proportioned women of average weight at different stages in their biological lives. They constitute a form of self-portrait executed millennia before the invention of mirrors. What has been seen as evidence of obesity or adiposity is actually the foreshortening effect of self-inspection [McDermott 1988]. Thus, the autogenous hypothesis is in basic agreement with the life-cycle realism perceived in this class of artifacts (e.g., Duhard 1993a, b; Rice 1981) but requires viewers to rotate their point of view approximately 90°. When properly viewed, stylistic or structural regularities such as the generalized atrophy of the upper and lower body of the "lozenge composition" emerge as the function of a common creative process determined by the fixed position of the eyes. It is possible that the multiple vistas required by self-viewing are preserved in the different stages of unfinished pieces as well as in the boundaries defining other categories of partial human figures encountered in the Upper Paleolithic. Stylistic variability observed in figurines within and between PKG-style sites and regions, in contrast, would be the logical consequence not only of women's ages and reproductive histories but of the probable morphological diversity distinguishing individuals and groups, the phase of pregnancy represented, and variations in self-inspection routines (e.g., the over-the-shoulder view) within the autogenous paradigm.

If the attributes of PKG-style images realistically correspond with the point of view employed by their creators, then the apparent exaggeration and distortion of certain body parts and the reduction and omission of others cannot be assumed the result of either accident or arbitrary choice. The elegance with which an autogenous feminine viewpoint requires these exact attributes stands in dramatic contrast to previous speculations about their motivation. Evidence indicative of one-of-a-kind accidents and arbitrary symbol and ritual will have to be sought elsewhere than in the attributes of the images themselves. At the same time, the representational accuracy of art in later historical periods does not preclude its having had a symbolic function. Yet, if PKG-
FIG. 10. Autogenous visual information of buttocks as seen under the arm. Top, photographic simulation of modern woman's view; bottom, same view of Willendorf no. 1 (cast).
FIG. II. Photographic simulation of modern woman's view of buttocks as seen over the shoulder.

style images are self-portraits centered on individual reproductive events, the assumption that they represent abstract ideas such as the worship of a prehistoric mother goddess must be reexamined.

The realism of form and content seen in PKG-style images when properly viewed suggests a materialist hypothesis for why our species first began to make images of the human figure and what function they originally served. As accurate representational images of the female body at different stages of development, they stored and preserved information about biological processes unique to the lives of women. No answer to the absence of male sculptures from the PKG horizon could be more parsimonious than that women first developed human image making as accurate records of physical changes they alone experienced and presumably controlled.

The needs of health and hygiene, not to mention childbirth, ensure that feminine self-inspection actually occurred during the Upper Paleolithic. Puberty, menses, coitus, conception, pregnancy, childbirth, and lactation are regular events in the female cycle and involve perceptible "time factored" alterations in bodily function and configuration (Marshack 1991a:282). Accurate obstetrical and gynecological knowledge benefits women today and can be presumed to have done so during the Upper Paleolithic. New observations about the female's procreative role, such as improved techniques of childbirth or a more reliable method for calculating the time of delivery, would have had the practical improvement of women's lives to advertise its spread. That women gained increased control over their reproductive destinies during the Upper Paleolithic is suggested by the decline in representations of pregnancy (Duhard 1993a:88) seen between Gravettian (68%) and Magdalenian images (36%). It seems highly possible that the emergence and propagation of PKG-style images east and west across Europe occurred because they played a didactic role in
the conscious mastery of the material conditions unique to women's reproductive lives.

A feminine motivation and function for PKG-style images raises the logical possibility that the dispersal or diffusion mechanisms responsible for their spread likewise reflect the perspective of women. Furthermore, if PKG-style images of the human figure were created and disseminated by women, it is also possible that PKG-style and Aurignacian sculptures of animals, which employ similar materials and techniques, were created by women. The evidence of the autogenous hypothesis thus raises the possibility that women led in representational image making during the early and middle Upper Paleolithic and should probably be credited with introducing this important cultural activity.

Finally, the autogenous hypothesis raises questions of individual and collective development whose theoretical significance needs to be mentioned (see McCoid and McDermott n.d.). If self was the armature upon which the first image of humanity was constructed, when and how did images based on the appearance of others supplant those based on self? What changes in cultural life were responsible for this fundamental change in representational focus? Also, since the important role once played by autogenous information in human cultural life appears to have been overlooked, modern philosophical and psychological concepts of individual self-awareness and the internalization of self-image may need revision.19

Comments

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The thesis of this paper struck me as an original and intriguing idea, but on reflection it simply won't fit the bill. It was certainly wise of the author to restrict himself to the relatively well-provenanced and dated figurines from Central and Eastern Europe [Abramova 1995], though his occasional references to figurines from western Europe ignore the grave problems which beset some of them—not merely their lack of solid provenance and dating but also the possibility that some of them may well be fake [Bahn 1993]. [For example, doubt has been cast on some of the Brassempouy figurines [Niedhorn 1990]; it is probably impossible now to be sure of the authenticity of the "Venus" of the Abri Pataud, and there have always been misgivings about the Grimaldi figurines—Bisson and Bolduc [1994] are admirably open and objective about the latter's uncertainties, and convincing evidence is still awaited.] However, while focusing on the Central and Eastern specimens, McDermott inexplicably omits the astonishing "Dancing Venus of Galgenberg" [Neugebauer-Maresch 1988], although it is probably the oldest known female figurine of its kind in Europe. The supposedly male figurine from Avdeevo, tentatively mentioned in the paper, is extremely doubtful: its gender has been interpreted, somewhat tenuously, from its musculature and posture rather than from sexual characteristics [Gvozdovery 1995:23].

Turning to the theory: if I understand McDermott correctly, he is claiming that all of these figurines were produced as self-portraits by female carvers, many of them pregnant, and all apparently ignoring the bodies of those around them and relying exclusively—for thousands of years—on the distorted views they could obtain by peering down at their own. There are numerous problems with this notion. First, it is as sexist to claim that all these images were made by women as it is to assume that they were all produced by men. I have repeatedly (e.g., Bahn 1986, Bahn and Vertut 1988) criticised the traditional androcentric view that these figurines were all made by men for men, as erotica or suchlike, but McDermott's question—"If men were involved in creating human images at this time, why are virtually no males represented?"—is irrelavent. With tongue in cheek, one might envisage archaeologists of the future posing the same question about 20th-century magazines, since our glossy publications for both men and women are heavily dominated by images of women! One simply cannot assign a sex to the creators of these Paleolithic images on the basis of their content—to assume that they were all women instead of all men merely swings the pendulum to the other extreme, whereas it should be in the middle. We do not and cannot know their sex. It is all the more preposterous, therefore, for McDermott to proceed from there to the possibility that Pavlovian-Kostenkian-Gravettian and Aurignacian sculptures of animals were also all created by women. This is, of course, theoretically possible—but then, so too is the old androcentric view.

McDermott seems to be trying to support his hypothesis of female artists by the suggestion that these images are accurate self-portraits of (mostly pregnant) women seen from above. This view confronts the same obstacles as that of Duhat [1995], in which some parts of the figurines are physiologically realistic but others are schematic or stylized. McDermott considers the whole image to show "a realism in representation which sometimes approaches scientific exactitude." One wonders, first, why artists of so long ago should have been concerned with such precision, which is surely an extremely modern feature. Second, it appears all the women must have produced the images while standing up, so that they could keep looking down at their bodies.

19. Modern cognitive self-images incorporate technologically mediated visual information, including that from mirrors, even though such stimuli would not have been available during the evolution of the brain. This observation is important because the PKG style suggests that autogenous visual information once played a greater role in self-conscious behavior. The contribution of two different sources of visual information to our modern self-image may explain why normal women as well as those suffering from eating disorders such as anorexia nervosa consistently overestimate the width of their own bodies [Bozzi 1988, Slade and Russell 1973].
from different angles, which strikes one as somewhat implausible.

Finally, McDermott’s theory is particularly unconvincing in its attempt to explain the abbreviated nature of the bodies’ limbs: “in looking down with arms at the side, a woman does see only the foreshortened front surface of her upper arm”; “when arm and hands are crossed over the breasts, they present their narrowest aspect to the eye in an edge-on view”; “the lower body and feet are optically correct for the point of view employed in their representation”; and “for a pregnant woman, inspection of the upper ‘half’ of the body terminates at the navel.” This all sounds highly unlikely. It is not difficult at any time to see one’s arms and hands and to know their true shape, size, and proportions. Similarly, when one is sitting down (and I would assume that most figures were carved by sitting or squatting artists, since the process is long and arduous), one can see one’s thighs, calves, and feet extremely well, and even the most heavily pregnant woman must remember what her lower extremities looked like, even if she, like all the other artists, was totally ignoring the bodies of everyone around her! If, as McDermott claims, “any image of self as an independent three-dimensional entity must be the mental combination or integration of those multiple viewpoints possible for direct visual self-inspection,” then why do these not include the perfectly easy viewpoints of the body’s extremities?

In short, one can at most accept that self-inspection may perhaps have contributed to some figurines and may possibly have led to stylistic conventions that were adopted and copied for millennia. But I am totally unconvinced that all these figures were carved by upright pregnant women who were only interested in the photographically accurate reproduction of certain parts of their bodies as seen from particular angles. I believe the self-inspection idea is an interesting footnote to the study of female figurines, not the revelation of a fundamental factor in their production.

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This paper joins a growing list of works advocating new perspectives for interpreting Upper Paleolithic Gravettian-style female figurines and seeing them as objects made by and for women. McDermott is to be commended for suggesting new ways to view these interesting and controversial artifacts. At first glance the self-inspection perspective would seem to explain many of the departures of these sculptures from naturalistic attributes and body proportions. Unfortunately, this hypothesis is based on a series of assumptions that are unrealistic. It also minimizes the significance of variability in facial, hair, and genital attributes that does not fit the hypothesis.

Four assumptions underlie this interpretation. First is the notion that an immediate visual template is necessary to sculpt an image. Direct observation of a model while working should not be necessary. Elaborate Upper Paleolithic stone technology demonstrates the cognitive capacity to make objects on the basis of remembered mental templates rather than direct copying, and sculpting from remembered form is certainly the case in animal depictions. The Vogelherd mammoth and horse probably did not stand for their portraits.

The second assumption is that the sculptures are all self-portraits. Although possible, this is fundamentally speculative. That some of the best-known specimens have attributes appearing to be derived from self-inspection cannot, without resort to circular reasoning, be turned into the generalization that all must therefore be self-portraits. Competing hypotheses viewing the unusual body proportions as a symbolic code are equally probable.

McDermott also assumes an unrealistic adherence to a rigid, erect posture to explain the misperceptions of scale present in these statuettes. Feet and legs do appear reduced in size relative to the torso when viewed while standing, but their correct proportions are readily evident when sitting. The same is true for forearms and hands, which are probably the most frequently seen parts of the body and appear foreshortened only if held at the sides. If the autogenous hypothesis is correct, then commonly observed features such as hands should be prominent rather than rare. I find it inconceivable that Upper Paleolithic people were unaware of their own attributes from observations of their own bodies in different postures and of the bodies of other humans.

The final assumption is that without technological assistance the self-viewing perspective is the only way an Upper Paleolithic person could develop a self-image and that this explains the absence of facial features and misshapen heads on many of the sculptures. Reflections in water are distorted if the observer is standing, but bending over a calm pool to drink produces an accurate image of the face and upper body. Likewise, if sculptors were having to contour their bodies to see their own buttocks, then it is hard to believe that they would not have simply crossed their eyes briefly to see their own noses.

Hair, although outside the visual field, is frequently depicted on the sculptures. This important contradiction to the autogenous hypothesis is ascribed to tactile knowledge. A similar argument is made for the enlarged and open vulva common on but not restricted to Italian specimens. This brings the critical question into clear focus. If tactile knowledge allowed some unobserved features to be depicted, then why not facial features, which, being the most distinctive individual characteristics, should be included in a self-portrait?

The most reasonable explanation for this is not the observational constraints of the self-inspection perspective but culturally conditioned choice. This is hinted at when differences are attributed to “regional variations.” If choice was exercised in creating these sculptures, then the presence or absence of features must have cultural
meaning. An excellent example of this can be seen in
the patterns of facial morphology among the Grimaldi
sculptures that are unambiguously female. The seven
specimens with ovoid heads have no facial features other
than a hairline. Two crudely fashioned specimens have
dorsoventrally compressed heads with incisions for eyes
and mouths as well as distinct hairlines. The final piece,
the “double figurine,” possesses a flattened triangular
head with a distinct mouth and probably other facial
features that were violently removed in antiquity [Bis-
son and Bolduc 1994]. Because I believe these specimens
to have been produced over a time span exceeding 5,000
years [Bisson, Tisnerat, and White 1996] this patterning
is best interpreted as reflecting the changing symbolic
significance of the face over time. The autogenous hy-
thesis, which suggests unchanging perceptions of the
body, fails to accommodate this type of variation.

Although I disagree with the general application of
the hypothesis, it may be useful in interpreting some
specimens. For different reasons, I agree with McDer-
mott on the likelihood that many of these figurines were
made by women and refer to reproduction.

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Seeking the significance of female figurines in the mid-
dle Upper Palaeolithic is a quixotic adventure in which
McDermott proves himself to be a worthy, indeed chiv-
alrous knight. Drawing a veil over sex and lifting the
burden of fertility or motherhood symbolism, he gives
Stone Age women control over their own bodies and
epitomises their reality in the natural self-represen-
tation of their soft curves and full figures. Is he dreaming,
or is his quest successful?

Despite attempts to subordinate PKG-style figurines
to taxonomic formulæ [Gvozdrov 1989, Leroi-Gourhan
1968a] or to suggest that their importance lies in a par-
ticular aspect such as the depiction of their genitalia
[Marshack 1991b], it is evident to anyone who looks
at these representations that each one is unique. The
possibility that each one might also represent an actual
individual has been encouraged by research such as that
of Duhard [1990a, 1993b], which provides analogues for
the physical forms depicted but evidently regards them
as depictions made by others [e.g., Duhard 1993c:290].
McDermott goes one step farther and suggests that they
are self-representations. This echoes the already widely
held view that these figures are not only about women
[Cook n.d., Delporte 1993, Duhard 1993b, Marshack
1991b. Rice 1981] and extends it to suggest that they
may have been made by women for women because self-
representation would imply that any intended symbol-
ism was inherent in or particular to the woman de-
picted, perhaps being her totem, and that the act of
reproducing herself in figurine form may also have spe-
cial significance. This not only is a useful counterpoint
to the androcentric theories concisely outlined by Mc-
Dermott but also challenges the view that these figures
might only symbolise broad non-personal concepts such
as fertility or motherhood and that they were produced
to conform to standardised conventions. This will be
an attractive proposition for those seeking to engender
archaeology, as well as those such as Knight [1991;
Knight, Power, and Watts 1995] who offer behavioural
hypotheses to account for what they regard as the “sym-
bolic revolution” of the Upper Paleolithic. However, as
McDermott admits, his hypothesis has not been system-
atically tested and relies on casual reference to the ma-
terial and the absence or, at least, rarity of male represen-
tations in this period for support. This is a drawback
which bids us be cautious.

Considering the autogenous theory, it may be said
that it seems to work well with the Willendorf 1 figu-
rine and some others such as Avdeev 2 and 78, Gagarino 1,
Kostenki 1-I figures 3 and 4, and the yellow steatite ex-
ample from Grimaldi [Delporte 1993;124, 169, 174, 176,
163, and 100, respectively], whereas in other examples
self-inspection might be said to have had an influence,
although the model does not fit closely. Avdeev 77-1
and 77-2 and Kostenki 1-I and 1 and 2 [Delporte 1993:
173, 162] show natural, observed profiles, as do the tor-
sos from Petřkovic and Eliseевич [pp. 148, 183].

Equally, although self-viewing may contribute to char-
acteristics such as the protuberant buttocks of the “punch-
inhelio” from Grimaldi or the Savignano piece or the
flattening in pieces such as the perforated Grimaldi fig-
ure or the tall figures including Avdeev 1 and Gagarino
3 [pp. 103, 109, 102, 169, and 177, respectively], it does
not satisfactorily account for all their qualities. This
must also apply to Lespugue and Dolní Věstonice 1 [pp.
35, 138]; the latter must surely have been observed
face-on. Similarly, it does not suit the possible birth-
ning figures from Sireuil and Tursac [Duhard 1993c] and
possibly Kostenki 13 [Delporte 1993:168]. Further, McDerm-
ott ignores the more enigmatic female representations
such as Dolní Věstonice 12–14 and Predmostí [pp. 140,
149–50], which clearly do not fit the theory. It is also
evident although not necessarily problematic for the
theory that, in addition to hairstyles, the shoulder
straps, back and waistbands, and aprons on some figures
are drawn as observed by another person; otherwise they
would appear as short, disconnected strips. In short, the
autogenous theory might be said to correspond to a gen-
eral idea of what PKG-style figurines look like, but this
perception is in itself remarkably biased by the greater
familiarity of the Willendorf 1 figure and belies the real
diversity present.

In an attempt to strengthen his case, McDermott uses
the absence or rarity of male figures in Pavlovian-
Kostenkian-Gravettian contexts to emphasise a gyno-
centric interpretation. His assessment of the evidence
would probably meet with general agreement, although
it is surprising to find the Aurignacian statuette from
Hohlenstein-Stadel included in the argument. This piece
is outside the period under consideration both chrono-
logically and stylistically. Whether the heavily restored head is that of a lion or a lioness is equivocal, and the same may be said of the sexual characteristics. The stance and muscularity of the figure certainly distinguish it from PKG-style female figures but compare well with other Aurignacian figures such as the Galgenberg “dancer” or the much smaller ivory bas-relief from Geissenklösterle. However, it might also be noted that there are some similarities between Hohlenstein-Stadel and the Brno figure which McDermott tentatively accepts as male in the form of the genital areas. The Laussel figure is probably best regarded as sexually ambiguous, although for an adolescent female it would have Amazonian proportions. As for the supposed Pavlovian head referred to here by the reference “Marshack (1988),” records made at the British Museum when this object was offered for sale in 1948 show that evidence was found indicating that it was made recently on ancient ivory. These details aside, the absence of male representations does not preclude male interest in, or manufacture of, female figures and should not be taken as support for a uniquely female origin and use. It might also be useful to consider whether some of these figures incorporate both male and female sexual references [see, for example, the profiles of Willendorf 2, Dolní Věstonice 2, and Khotylevo 1 and the mammoth metapodial figures from Předmostí in Delporte 1993:135, 143, 185, and 150].

Overall, it may be said that, combined with Duhard’s approach to realism (1993b, c, 1995), awareness of the self-regarding view offers a valuable way of looking at and appreciating the figures. However, it cannot be used to engender the interpretation of these objects, as it lacks any appreciation of their context, associations, and distribution [Cook n.d.]. As it stands, the theory needs more testing and support to avoid being cast as an academic outcome of 20th-century social evolution just as predictable as Efimenko’s finding female ancestor images at the heart of a matrilineal clan organization in keeping with the theories of Morgan and Engels.

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This innovative paper offers an intriguing hypothesis about one source of the iconography of Paleolithic “female figurines.” For the purpose of this comment, I will accept McDermott’s remarks about the chronology, distribution, and style of the figurines. He suggests that the three-dimensional form of the figures was derived from self-generated and self-regarding visual information. The visual parallel between some such views and some aspects of the form of the figurines is quite strong, but McDermott’s explanation—that the figurines “constitute a form of self-portrait”—is not the only possible one.

1. It is not true that “before representational art or mirrors” one could inspect only his or her own body or that of another person for “information about human appearances.” In principle, shadows, full- or part-body imprints in soil, sand, or snow, and the “trace” of the body’s shape and dimensions carried in the forms of clothing could all provide such information. Transcribing it would have resulted in a two- or three-dimensional image somewhat different from a purely self-regarding one. But the figurines are clearly not wholly self-regarding anyway; they include formal recognition of body parts [such as the top and back of the head or the lower portion of a “swollen” belly or abdomen] that it is impossible to see in this way. They are certainly not sculptural transcriptions of any single self-regarding view, though McDermott says little about how the “multiple” views were “combined,” the principle of paratactic coherence was not itself self-regarding. [By definition it requires adopting an outside vantage point—not necessarily equivalent to any real standpoint in the world—from which an external object is viewed, for the overall view presented by the whole figurine to be self-regarding, the maker would have to be somewhat floating outside and all around herself.] In making a “self-portrait,” in other words, the subjective must be objectified. Clearly any objectification of the self can be obedient to the demands of others. Thus it remains an open question whether and how self-inspection data—let alone subjective reality in relation to social expectation—were coordinated with data from other sources in the making of the figurines.

2. McDermott comes perilously close to indulging one of the hoariest fallacies of art criticism—namely, the idea that image makers simply copy the image projected on the retina of their [own] eyes, the question being what that image is [e.g., an image of one’s own body, of other objects, etc]. It is possible to produce a reasonably convincing two-dimensional simulacrum or illusion of one’s own retinal image; reproduced on a contact lens, it could exactly “mask” the actual view, in somewhat the way McDermott suggests the figurines could have been held to “mask” the real body. But this simulacrum is not the autogenous retinal image itself. It can only be a mediated copy-transcription produced according to techniques of “fabrication” that McDermott tells us nothing about. No doubt the fabricator might intend that the copy-image transcribe a self-viewed universe; to that extent, we can say it is autogenous. But does not even need the retinal image to make the picture? Moreover, nothing prevents an autogenous view from being produced through tactile examination, mensuration, induction, and so on—just as a perspective picture can be constructed artificially [rather than through direct transcription of the retinal image of binocular stereoscopic vision]. McDermott provides no criterion for distinguishing visual fictions of a self-inspection view—it may or may not have been conducted by the “self” on itself—from the retinal images generated in self-viewing as they were supposedly copied [but how] by that very viewer. Although the two types of image could be morphologically indiscernible, only the latter is necessarily an image made by the “self” of its own body. It is fascinating to suppose that Paleolithic art arti-
ficially constructed fictively “autogenous” views—just as Renaissance painters artificially constructed fictive perspectives—but this is a point quite different from McDermott’s.

Key, here, is the fact that once we introduce a necessary stage of copy-transcription into the fabrication process, we also partly detach the image from its supposedly original autogenous “source.” It now becomes a pictorial convention available for reproduction, revision, and manipulation both by the “self” and by many other users. The corpus of figurines is nothing if not conventionalized. Just as there are many ways in which “frontal” and “profile” depictions of parts of the human body can be combined but Egyptian art reproduces one typical combination (see Davis 1989:10–29), so there are many ways in which “multiple” self-regarding views could be combined but Paleolithic figurines, if McDermott’s claims about regularity are valid, imposed one typical array.

3. I am sceptical, it follows, that autogenous images were necessarily made by the very persons who experienced just those kinds of retinal images—that the figurines were images made by women of their own bodies. Although the idea is attractive, it takes too little account of the mediated and intersubjective processes of representation and fabrication. At the moment, the visual evidence seems to me to support a weaker thesis: according to a general [but unknown] paratactic principle, someone combined self-inspection-derived images of some parts of women’s bodies—or imitations of such images—with other information to make a three-dimensional picture that is a convincing but strongly conventionalized visual fiction of (or for) Paleolithic women’s self-image of their own bodies, whatever such self-images, both retinal and psychological, might actually have been (presumably they were quite variable). As that phrasing suggests, I would emphasize the mediated—ideological, fantastic [imaginary], symbolic—nature of the imagery. McDermott rushes to infer that the images bespeak Paleolithic female image makers’ knowledge of and control over their own bodies, particularly reproductive processes. I will not go so far as to say that this is simply present-day politics, progressive though it may be, but I see nothing in McDermott’s account that prevents us from supposing that the figurines were made by men to provide definitive images for women about how their bodies— their “selves,” if such a distinctively modern notion has any place in this discussion at all—appear and ought to appear to them, even from their own “point of view.” This interpretation is quite as consistent with contemporary feminist theories of subjectivity as McDermott’s.

4. To “represent” the “self” is to treat it as an object. What has its origin in autogenous experience, or egocentricity, modulates into the experience of the alienated social person or “subject.” Perhaps romantically, McDermott sees the female figurines as expressions of an unalienated world—a world before the “mirror stage” in which the subject is quadrated by verifying its own being in the perception and representation of it by other people (Lacan 1977). I am sympathetic to the attempt analytically to discover the ego’s representations of itself as it is grounded in its own actual lifeworld—distinguishing between egocentricity and “subjectivity” should be one of the prime interests of current anthropology and art history (see Damisch 1994, Davis 1994)—but if there is such a representation it cannot be conventional. Although McDermott does not fully deal with the relation of ego and subject or of self and other, in his suggestive analysis he does directly raise the question for students of prehistoric culture.

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The study of Paleolithic mobiliary art has two aspects: [1] objectively, the analysis of objects, with a broad and increasingly precise description, and of the valuable indications of their distribution and associations, and [2] subjectively, hypotheses about the morphology, the meaning, and the motivation of those objects. For female figurines these hypotheses are numerous and varied (Delporte 1993). McDermott examines figurines from the Gravettian group, omitting the Mal’ta and Buret’ Siberian statuettes without explanation but certainly because their figurative scheme, like that of the Magdalenian, differs from that of the European Pavlovian-Kostenian-Gravettian group. One major characteristic of many of the female figurines of the latter group is a deformation of the body involving a hypertrophy of the pelvis region and an atrophy of the extremities [head, legs, and feet]. Leroi-Gourhan (1965, 1971) considered this deformation suggestive of a lozenge-shaped form, de facto and not intentionally constructed. In his opinion and that of many other researchers including myself, this process tends to place symbolic value on the essential parts of the female body. Duhard (1993), for his part, claims that there is no deformation: in his professional career as a gynecologist he has met contemporary women showing the same so-called deformations.

McDermott’s theory is original: that the figurines’ morphology does not arise from symbolism or intent but is optical, a translation of the image seen by the artist when she looks down at herself or when she turns her head at a 90° angle. The differences in the figures’ proportions are to be linked to the age of the artist and therefore to the sexual stages of her life. This idea has already been expressed by Duhard [1993] and Rice [1981]. This theory provides an explanation for body disproportions: the reduction of the head to a button, the absence of facial features, the relief of the breasts, abdomen, and buttocks, and the atrophy of the legs [Luquet’s intellectual realism]. Why, then, are the arms, being so close to the head, absent or atrophied? The interest of this theory—which, without condemning it, I do not share—is that it implies that the female and perhaps
also the animal statuettes were sculpted by women, which is conceivable but goes against some hypotheses, especially erotic ones such as Guthrie’s (1984).

Without formally opposing McDermott’s ideas, I would like to make several points:

1. The figurines from the Pavlovian-Kostenki-Gravettian group are not the oldest. In the Central European Aurignacian, at Hohenleinstat, Geissenklösterle (mentioned by McDermott), and, above all, at Galgenberg (Neugebauer-Maresch 1989), there are statuettes that do not follow the rules of construction, symbolic or optical, of this group.

2. The Brno male figurine can be dated on the basis of the pit’s furnishings; we will be able to attribute it to a group—maybe to the PKG—only after nondestructive radiochemical analyses have been conducted on it. Nevertheless, it is possible, though exceptional, that there are male figurines in the Pavlovian-Kostenki-Gravettian group, for example, the belted figurine from Brasempouy, according to Duhard.

3. McDermott is imprecise in mentioning connections between the Pavlovian-Kostenki-Gravettian group and the Magdalenian. We have to insist on the fact that the engravings of La Marche, the style of which is so distinctive, are only Magdalenian (Pales and de St.-Pereuse 1976).

4. In a friendly manner, I would suggest to McDermott, along with other English-speaking writers, that he take a look at French-speaking literature, for example, Leroi-Gourhan’s work, the role of which is misunderstood or, it seems to me, given insufficient attention.

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No better argument could be made for the polysemic nature of prehistoric visual imagery than to inventory the number of interpretations proposed over the past century for the meaning and/or function of the archaeological materials dubiously called Venus figurines. In this provocative essay McDermott adds another novel idea to that ever-growing list—a list clearly responsive to the historically specific social, economic, and political circumstances within which prehistorians have developed their ideas. The most prevalent paradigms structuring these interpretations can be grouped under the headings of androcentric voyeurism, sociobiology, and feminism (Dobres 1992a, n.d.), and I find in this account aspects of all three.

The feminist aspects of McDermott’s work can be found in the way he highlights female self-expression and the conscious mastering (mistressing?) of knowledge about health and related gynecological issues as direct motivations for these depictions. While I applaud his attempt to introduce some degree of conscious agency into the question, this attempt is nonetheless under-written by insidious sociobiological premises and remnants of androcentric voyeurism of which even he is (apparently) unaware. I limit my discussion to the vestiges of androcentric voyeurism I find most troubling and comment briefly on related issues of typology and classification that are, in my opinion, left unresolved.

Androcentric projections still embedded in this autogamous account take two forms. The first is McDermott’s continual reference to the “normal-sized” and “average” woman. What, pray tell, is a normal-sized woman, and whose average is the appropriate one for this study: a healthy, well-fed, middle-class white woman of European descent? a minority, inner-city, poorly nourished teenager who has experienced one or more abortions or miscarriages? a pregnant woman from Samoa? from Kenya? from Japan? from the Basque country? How are we to compare an “average 26-year-old mother-to-be with a 34C bust” with [similar?] females living extremely different lives ca. 26,000 years B.P. in what is now the Czech Republic, Slovakia, eastern or western Russia, or southwestern France? On methodological grounds I take exception to McDermott’s strategy of averaging out empirical variation and question the wisdom of this overly reductive biological basis for a woman’s self-perception, past or present.

Specifically, I am troubled by the way this account separates brute visual perception from the cultural lens through which all seeing is accomplished. Much of this theory is premised on an art-history argument that socioeconomic and cultural contexts motivate and structure formal vocabularies, or what in archaeology are still called stylistic conventions. But behind that position is a corollary: that all perception and representation is culturally mediated. This does not mean that each person “sees” the physical world differently. But we do experience it, conceptualize it, then proceed to represent it, depict it, and give meaning and value to it on the basis of the various personal experiences that serve as our background interpretive frameworks (Anderson 1979:140–42; Forge 1979; Lewis-Williams and Dowson 1988, Washburn 1994:102; among many such arguments). What this means from a combined feminist art-history and psychological perspective is that a woman’s representation of her body is never simply an objective recording of what she physically sees when looking down. Thus I take strong exception to the claim that “there is no reason to suspect that information from direct self-inspection has changed since the Upper Paleolithic.”

What McDermott’s camera records is not all that a woman [or a man looking down at himself, I suspect] “sees.” The camera cannot approximate the interpreted sense of corporeal self and body, inseparably intertwined as they are, that necessarily precedes any further conventional rendering of it in three-dimensional media such as sandstone, steatite, and clay. The camera does not interpret physical reality in the way that gendered humans do. McDermott privileges the physical distortions that come with looking over one’s shoulder at
one's buttocks or over a protruding belly, but he apparently does not recognize that the "average" woman "sees" much more and much less than this [Brooke-Rose 1986, de Lauretis 1987, Pointon 1990, Pollock 1987]. Moreover, McDermott's belief that an "objective physical perception" and "optically correct viewpoint" about the human body based on "direct visual self-inspection" is possible outside this cultural lens fails to take into consideration that even so-called objective scientific views of the (female) human body have changed radically over the past three centuries or more [Foucault 1975, Laqueur 1990].

My second concern relates to the general issue of typology and how to cope with empirical diversity encountered in the archaeological record, but on this point I do not think McDermott and I will ever agree. Considerable attention is devoted to only two facets of material variability within this corpus of imagery, and in both cases the purpose is to play down their relevance to the "clear central tendency" toward lozenge-shaped females. Of course that is what this imagery depicts, but that does not mean that associated attributes such as raw material, its workability, intrasite spatial distribution of recovered specimens, archaeological context, and technical details of fabrication, much less whether the imagery is portable and "palm-sized" or fixed in the landscape, should be catalogued but considered analytically inconsequential. It is clear that what counts as variability, homogeneity, and heterogeneity in archaeological data is in the eye of the beholder. Surely how one goes about lumping or splitting artifacts into arbitrary analytical categories depends on what the researcher wants to understand. But if the subject at hand were lithics there would surely be dozens of (overlapping) categories into which the data would be variously organized—each highlighting potentially meaningful attributes of one sort or another—and few would be satisfied with a study of "blades." While McDermott prefers to focus on the general category "female," I believe that contextual and empirical attributes pertaining to raw material, stylistic details, archaeological provenience and related material patterning, quality of rendering, and completeness of subject matter must be made part of the analysis and not merely listed as supplemental regional conventions. In this regard I am not at all clear why a 3,000-km "cultural corridor" is appropriate for bounding this study rather than an 8,000-km "female statuette zone," except that the inclusion of the Siberian specimens would make it harder for McDermott to discount empirical variability in favor of a central tendency.

In the end what bothers me most about this study is its blatant morphocentrism. This research did not start with a general processual question about the relationship between visual imagery and behavioral processes in prehistory, with a concern for archaeological context, or with fundamental technological concerns. Instead it started with a novel observation about morphological parallels, then proceeded to rally theory to support and explain it. Rather than thinking of these images within a traditional Western "art" framework in which end-product-for-viewing is the typical goal, we might explore the possibility that it was in the act of creating the imagery that meaning and value was signified and that the act of depiction and re-creation of self in another medium was more the intent than what the final form reflected about obstetrical and gynecological knowledge. Without more concern for technological issues, and not for the sake of description [as McDermott does briefly consider them] but as potential clues as to the physical and social contexts in which their prehistoric meanings were also produced, we will continue to have novel interpretations that begin and end with palm-sized naked females frozen in stone. The time has come to consider the multiple layering of possible meanings, motivations, and material conditions informing the production and use of these artifacts rather than promote a single best explanation no matter how original.

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McDermott assumes that the absence of complete anatomical realism in the sculptures in question is to be explained by their mode of conception—made in the image of an individual woman by herself after self-examination. This brand-new theory should not be rejected a priori; after all, any innovative idea can move us farther along on the path of knowledge, and we must congratulate McDermott for his imaginativeness. It will not, however, come as a surprise to anyone who knows my work on the subject [e.g., Duhard 1989a, 1990a, b, 1991b] that I do not quite share his point of view.

Although the overwhelming majority of representations of humans in this period is female, males are not absent. There are at least two from France—the "Priape" from Laussel [Musée d'Aquitaine] and the "figurine à la ceinture" from Brassempouy (Musée des Antiquités Nationales), which has a relief of the scrotum and penis that is carefully sculpted and polished [see Duhard 1987a].

According to McDermott's hypothesis, when the individual looks at herself full-length, assuming that the eye acts like a wide-angle lens there will be distortion of the body image, with the chest longer than the lower limbs, extended breasts, and reduced extremities. Depending on the volume of the belly, the feet, lower limbs, and genital region may even disappear. But the human eye does not act like a wide-angle lens; its focal corresponds to a 50-mm lens, producing no distortion. Besides, the image is seen not by the eye but by the occipital centers of the brain, since every image is interpreted. Our anatomical knowledge of the body comes both from self-examination and from the examination of others in such a way as to verify our identity in appearance while noticing differences. The women supposed to be represented after self-examination would not have missed the anatomical nonconformity of their bodies, and if they had their companions would have pointed it out.
This theory does not account for the facts observed. Reduction of the feet may be explained by their distance from the eye, but it is easy to bring them closer. As for their absence, it is not explained at all; it is obvious that we have them—we can see them, we use them, we touch them. Regarding the hands, the theory does not account for either their absence, their reduction (even when they rest on the breasts [Lespugue, Willendorf, the “manche de poignard”]), or their exaggeration when they rest on the belly [Parabita]. The hipped attitude that I have described for the torso from Brassempouy can only be explained in terms of examination by someone else or reference to the posture of another individual. A face like that of the “dame à la capuche” from Brassempouy (Musée des Antiquités Nationales), which is a true portrait in spite of the missing mouth and the rough shape of an eye, could only have been sculpted by another person unless the individual could look at herself in a water mirror—and if the latter all the other heads could and should have been similarly detailed, which is not the case. The realism of some vulvae, incorporated (Monpazier, Grimaldi) or isolated (from the Aurignacian to the Magdalenian), is not explained by this theory. It is impossible for any woman, unless she is a contortionist or has the help of a mirror, to see her whole vulva. Some vulvae are detailed in such a way (lubia minora, clitoris, vestibule) that they could only have been viewed by someone else.

My view is completely different from McDermott’s except on one point: complete anatomical realism is absent during the Gravettian (and the Upper Paleolithic in general), but there is realism of detail with regard to the regions of the female body involved in the reproductive functions. In my view, if the medio-corporal region is obviously privileged, it is for one simple reason: that this is the location of the female sexual characteristics, characteristics that allow recognition as a human being, specification of gender, and reading of physiological history (young or adult, gravid or not, nursing or not, etc.). The depictions of bodies are exclusively sculpted, this being the only way to represent volumes, and in the body parts represented, having examined almost 15,000 women of all ages throughout 25 years of gynecological practice, I can recognize shapes identical to living women’s, showing the same diversity in the appearance of their breasts, abdomens, hips, or buttocks and adiposity distribution (see, e.g., Duhard 1994). In my opinion the reduction or omission of distal parts is a matter of the graphic setting of the work; unnecessary to the recognition of humanness, gender, or physiological state of the individual, they are usually neglected. In the same spirit, I have pointed to the importance of the orientation of the upper limbs, rarely directed towards the breasts but quite often towards the abdomen, focusing attention on its reproductive function [Duhard 1989b].

Although I do not share Leroi-Gourhan’s ideas about the geometric structure of the figures [Duhard 1995], I agree with him that figurative art is directly linked to language and much closer to writing, in a broad sense, than to art [Leroi-Gourhan 1964–65].

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There is a conceptual difficulty at the root of McDermott’s paper that prevents me from engaging it as an archaeological or anthropological essay, and that is the definition of self-representation. If “autogenous self-representation” is not a redundancy, then I take it to mean self-representation that attempts to do justice to the viewer’s perspective, as opposed to self-representation that presents the viewer as he or she may appear to someone else, or in normative proportions.

At the very outset there are problems. The concept of perspective in this sense derives from Plato’s distinction between sculptures made according to the actual proportions of a figure (eikastikē) and those “semblances” (phantastikē) that are “optically corrected” so that their proportions appear correct from a certain point of view (Munman 1985; Trimpi 1983:113). Hence the idea of an intentionally uncorrected representation is decisively Western, and Plato’s interest in distorted and undistorted sculptures is an integral part of the Western development of the concept of drawn and sculpted linear perspective (Elkins 1994). In this context it is especially important that the concern with perspectival distortions, recessions, and proportionalities has been so pervasive in Western thought that it took an iconoclastic thinker like Maurice Merleau-Ponty to make a concerted effort to overturn the demands of perspective. Merleau-Ponty’s phenomenology of the body stresses the unproportional, unoptical possibilities that follow on a more somatic, less visual awareness of the body: for example, a foot or a hand might be depicted overly large because it is experienced that way [Merleau-Ponty 1962, 1993]. But virtually all figurative work in the West continues to play with perspectival options, even when it engages in a critique of perspective’s canonical forms.

So it is natural for post-Renaissance Westerners to be interested in these issues: but even if we allow that a non-Western, prehistoric sculptor could become interested in them, then it would still be necessary to think about the entire field of autogenous self-representation as it appears to us, so that we might become sensitive to the possibilities we project onto the material. It is not at all irrelevant that an interest in autogenous self-representation characterizes contemporary Western art more than modern, early modern, medieval, classical, or any other world art. Is it suspicious that our contemporary culture, the one most involved in self-representation, would be the one to discover it in other cultures?

In that context I offer three alternatives to McDermott’s insistence on the idea that any autogenous self-representation will involve enlarged torsos and dwindling limbs.

First: a representation might make use of reflections in water [not a difficult feat, as anyone knows who has tried the experiment] in order to produce an autogenous

self-representation more in accord with actual proportions of the body. In 1979 the artist Elsa Dorfman made such a representation using modern means, thinking of herself as the Venus of Willendorf; the photo shows her nude, holding the camera up to her eye, reflected in a hotel mirror. Second: a representation can be explicitly from the point of view of the artist and not involve any diminution of the limbs. Beginning in the early 1970s the artist Joan Semmel has made such representations (figs. 1 and 2), including a number based on the idea of the Venus of Willendorf. (Others do involve diminution of the limbs: it is a choice she makes, and she considers herself free to choose either normative or distorted representations—either eikastike or phantastike.) It is interesting that both works preserve proportions but crop the body, an option that is also available in sculpture. Third: a self-representation might seek to be a little more literal about the kinds of distortion McDermott describes by including the orbit of the eye, cheek, and nose as the largest elements in the visual field—as Ernst Mach did in several famous representations (fig. 3). Mach’s picture is the literal embodiment of what McDermott has in mind, and it follows his own strictures much more closely than the prehistoric figurines do. If “autogenous self-representation” were at work in the Upper Paleolithic, one might expect to find examples more self-consistently perspectival. And consider, as an envoi, representations that involve dwindling limbs but are not self-representations at all, for example, some late drawings by the Renaissance painter Jacopo Pontormo (fig. 4).

**Fig. 3.** Ernst Mach, The Field of Vision (Mach 1886:14, fig. 1).

**Fig. 4.** Jacopo Pontormo, Study for The Resurrection, Florence, Uffizi.
What is autogenous self-representation? No one knows, because no one has studied it: but certainly any study, whether or not it concerns prehistoric materials, should begin with a consideration of the possibilities, which are virtually all Western, virtually all modern, and without exception postclassical.

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McDermott presents another new view on an old topic, the Upper Paleolithic female figurines. Women are assumed to have this view looking down, and the statuettes are interpreted as autogenous self-representations. Two arguments against this view are the representations of the arms and the back. The back is treated in some detail, especially the buttocks, which cannot be seen like that by oneself. The arms are treated like the legs, being truncated or even absent, whereas seen from above they should be enlarged or of normal size. The bas-relief from Geissenklösterle [Hahn 1986:117–19], for example, has more a symmetrical arrangement of the upper and lower halves of the body and the limbs, as has been pointed out by many previous writers, because of its rhomboid outline.

Chronology is handled rather loosely here. The PKG-style figurines are sometimes called the earliest prehistoric representations, sometimes attributed to the middle Upper Paleolithic. They are not the oldest such figurines; in the Aurignacian they range between 36,000 and 30,000 B.P., and similar dates exist for Russian animal representations. The few Aurignacian anthropomorphic statuettes [Geissenklösterle, Hohlenstein, Stratzing] display “normal” proportions, with long limbs and indications of hands and feet but distinctive features such as animal attributes or nonstatic attitudes. The surfaces are not preserved, so the sex is difficult if not impossible to determine. The figurine from Krems-Stratzing is assumed to be female but is not considered by McDermott; its proportions, with long extremities, and its lifted arm do not fit his PKG scheme.

The discussion of male figurines is an attempt to challenge the apparently contradictory evidence to the assumed important role of females, and therefore the Aurignacian Hohlenstein-Stadel zooanthropomorphic figurine [length 50 cm] is supposed to be female. Schmid [1989], for example, considers the beginning of the throat, the fold under the navel, a breast fragment, the pubic triangle, and the missing mane as female attributes. The throat incision is, however, too vague to be considered the start of a female breast; the fold may occur in men, and the missing mane is a feature found in the recently discovered Chauvet parietal paintings of lions [Chauvet 1995:97; Clottes et al. 1995]. The pubic triangle, marked by its protruding position, is not conditioned by the pulpa opening. The length of the tusk, especially if the second 50-cm-long unworked one belongs to the same individual, would have allowed a more natural representation. The arguments presented indicate little familiarity with ivory as a raw material and the problems of preservation. Even if fossil tusks were used, the appendage is intentional. It may mean many things besides a penis, I agree, but there is only minor weathering of the interior of the pulpa on the obliquely cut lamellae.

The male figure of Brno 2 is questionable because of preservation problems. The head is separate, and the one preserved arm still shows the concavity of the ivory lamella, indicating that it was detached from a larger piece; it does not fit the supposed body. If fossil ivory was used, such fissure planes might have appeared during the carving process. The body very much resembles the pestles made from tusk segments known in the Pavlovian-Kostienkian-Gravettian; if it was a figurine, it must have been an articulated one.

I dislike chronological arguments, but mobiliary art is rather well dated as compared with parietal art. If the PKG-style females are placed in their chronological position, they cannot be used to discuss the origin but only the evolution of figurative art. Mobiliary art in the early Upper Paleolithic starts with normal-sized figurines, animal—often male bison and mammoth—and human representations that are often abbreviated and only in a later stage concentrates on the famous PKG-style female figurines. These earlier statuettes of animals and humans were necessarily seen by others. If McDermott’s conclusions on the self-representations of women hold, then it is only for the middle Upper Paleolithic. The evident variety in their form is not covered by his scheme.

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The idea that Pavlovian-Kostienkian-Gravettian female figurines are produced in accordance with observations by females themselves is certainly provocative. Some critical observations may be made.

Instead of a selection, a representative sample or even the whole corpus of known PKG-style figurines should be considered. Some of these [the majority] have no facial features at all, some have at least initial facial features [e.g., Brasempouy, the male figurine from Brno, Kostienki 1983, Avdjejevo 1977], and some have unrealistic facial features [Dolní Věstonice, the Předmosti female figure engraved on mammoth tusk]. As for the arms, they often contradict the enlarged or emphasized breasts, being significantly reduced [Willendorf, Lespugue, Gagarini 2 and 4, Předmosti]; this cannot be the result of self-inspection. Some figurines do not have exaggerated anatomical features that might be explained as due to the self-viewing perspective [Předkovice, Avdjejevo 1975]. Some have appropriately proportioned lower extremities [Gagarino 3, Avdjejevo 1], and the
The ethnographic and anthropological record provides no evidence that women in hunter-gatherer cultures ever produced "autogenous" representations of their observed anatomical "selves." Female images were often produced but always as indicative and/or mythic symbols.

The earliest Upper Paleolithic female representation is from the Aurignacian of Galgenberg, Austria, ca. 30,000 ± B.P. It is a green serpentine carving of a nude with one breast jutting out to the left, the other facing forward, the vulva clearly indicated, the left arm raised, and the right hand resting on the thigh, posed as though in a ritual or dance position [Neuebauer-Maresch 1988]. All of the "human" figures in the Aurignacian suggest aspects of ritual performance or ritual use rather than "naturalistic" depiction, including a lion-headed anthropomorph from Hohlenstein-Stadel and a carved bas-relief, probably male, from Geissenklosterle with the feet apart and the arms raised as in dance or ritual adoration, reminiscent of the Galgenberg female. A crude, rapidly carved anthropomorphic figure from Vogelherd, apparently a schematic female, was ritually overmarked with rows of gouges in the same way as were animal carvings including a lion from this site. The underlying ritual aspect of this Aurignacian imagery is crucial for any understanding of the human imagery that would follow.

The Gravettian ("PKG-style") females present different but related analytical problems. Most of the engraved or bas-relief Gravettian depictions of humans have raised or extended arms: Laussel provides three images of females holding animal horns in a raised arm; the so-called Laussel hunter has a raised arm, and the Laussel "birthing" scene depicts a female with bent arms clasping her raised knees while apparently giving birth [my direct microscopic analysis]. Later Magdalenian engravings and bas-reliefs also depict females with raised or extended arms: a Laugerie Basse pregnant female lying prone has raised arms under a phallic male reindeer; an engraving from Isturitz on bone shows two females in tandem with raised arms; an engraving and two bas-reliefs from La Madeleine depict nude females with raised, bent arms; and an engraving from Les Com-barelles does the same. Many of the engraved Magdalenian females depicted on the La Marche limestone slabs are obese in the manner of the Gravettian "Venus" figurines; the majority have upraised arms of normal width; many have been renewed or overengraved. They were probably, with the La Marche images of males and animals, engraved by others as elements of home-site ritual rather than as self-portraits [Pales and de St.-Peruse 1976]. The human arms in all of these female depictions are of "normal" width. An incised Gravettian female from Kostenki 1, on a fragment of marl, also has an arm of normal width that is extended outward [Abramova 1967b: 14, pl. 9 [16]].

Why, then, are the PKG-style female figurines depicted with exaggeratedly thin arms attached to a "lozenge" body? Was this done because of the relative unimportance of the arms and hands and the greater symbolic importance of the breasts and hips? Or because the arms were seen, from above, autogenously? Apparently not.

In engraving and bas-relief carving it is easy to depict extended or raised arms. Small ivory and stone figurines are, however, relatively difficult to carve in three dimensions. Even if ivory is "softened" by soaking or steaming, as was suggested by Semenov (1964), it requires slow, laborious whittling. "Free" arms extended from the body, thin ankles, feet attached to thin ankles, and thin necks would have been very likely to break either during the carving or in later use or storage.1 McDermott's drawings [fig. 1] depict the high proportion of missing feet and heads in the corpus. Direct analysis of the Upper Paleolithic female figurines suggest that the conceptual Gravettian "lozenge" noted by Leroi-Gourhan had as much to do with the difficulty of carving the human body in ivory, "bone," and stone as with any ideology concerning the importance of the breasts, hips, and navel [Leroi-Gourhan 1967:121–22].

An unfinished figurine made of a compact claylike chalk from Kostenki 1 [fig. 1] illustrates the mode and sequence of carving anatomical volumes and indentations by whittling and scraping in different regions and directions [Abramova 1967b:9, 1. 5[3]]. The bent head, with its "down-turned" face, produced a thick, strong neck during carving. The arms would have rested on the breasts; carved as part of the central mass, they would not have broken off. Strong counterpressures would have been applied to both the figurine and the tool during the scraping and carving, particularly in areas of deep indentation. The Kostenki figurine apparently broke in the process of carving the feet, in the area of thinnest mass, at the knees, and where the legs would begin to bend. The carving was, therefore, apparently angrily bashed across the chest, broken, and discarded. Broken-off heads and figurines with missing heads are common in the Gravettian. The production problems in these carvings were, therefore, different from those involved

1. The Galenberg carving has, probably for this reason, massive arms that are as wide as the head and the thighs but no wrists and no ankles. The body is not obese but that of a young woman.
in creating engraved or bas-relief human images. The conceptual “lozenge” was apparently, in part at least, a response to the problem of carving appendages and protuberances [heads, arms, and feet]. The Gravettian figurines have arms on the breasts, under the breasts, or at the sides, and some have no arms. The “black Venus” from Dolní Věstonice [McDermott’s fig. 1, g], modeled in soft clay before firing, has no arms; the incised Gravettian geometric, schematic female on an ivory tusk from Předmostí has arms, however, that hang freely, away from the body.

Among the Gravettian figurines, the clearly exaggerated wide hips and buttocks and the thin arms were largely invited by the lozenge form and the pragmatics of carving, not necessarily by autogenous observation. A “close reading” of the Gravettian females indicates that culturally relevant symbolic attributes or determinatives were often, also, added to the figurines after the basic anatomy had been carved. These were aspects of an underlying style rather than of autogenous observa-

tion. The “Venus” of Willendorf, one of the type figurines of the Gravettian (see Marshack 1991b), is short and exaggeratedly wide [see McDermott’s fig. 1, e]; it has an unnaturally thick neck but thin arms and tiny feet, probably because of the impracticality of carving long limbs or thin distal appendages in the relatively soft, breakable limestone. The Willendorf figurine also carries a number of attributes or determinatives that could not have been seen autogenously. She wears the common Gravettian female coiffure, which fills the head and overhangs a nonexistent face [fig. 2]. This coiffure consists of long, twined or plaited braids coiled around the head, recalling the coiled coiffure on a Gravettian ivory head from Dolní Věstonice [Marshack 1991a:301]. The zigzag abstraction of twining is the same as that found on the Willendorf figurine’s bracelets and on bracelets, body bands, and collars as far east as the Russian Plain [Abramova 1960, Marshack 1991b], indicating an aspect of decorative style across much of Europe. Upper Paleolithic females could not, of course, see the tops of their heads, yet the coiffure was a major, shared marker of mature females, it could be observed on others if not on the self. Like the lozenge form, the coiffure was an aspect of style and custom rather than of autogenous observation. The Willendorf figurine is also thickly covered with red ocher, a feature found on other Gravettian females [cf. Laussel] that suggests ritual use of the image—a suggestion that relates it to the overlaid earlier Aurignacian images and to the overmarked “buttocks” images of the Magdalenian [Marshack 1991a:307–11; 1991b]. Even an unfinished Gravettian anthropomorphic image on an ivory tusk [a sketch] was ritually overmarked [see McDermott’s fig. 4,c; Marshack 1991a:291]. But, above all, the Willendorf figurine has the most carefully and exquisitely carved realistic vulva in the entire European Upper Paleolithic. It is placed far under the voluminous breasts and stomach, where it could not have been seen by self-inspection. It is carved with an accuracy that could have been produced only by another, that is, by someone generally familiar with female anatomy (fig. 3).

Gravettian female images vary in the range and precision of such applied or associated attributes. It was often, apparently, these attributes that “marked” and gave cultural relevance to the figurines and their use, probably as much as the breasts, hips, and buttocks. This is strikingly apparent in one figurine that is inadequately described and illustrated by McDermott. The figurine from Monpazier [McDermott’s fig. 9, b; Clottes 1971] is a naturally shaped conglomerate iron hydroxide [limonite] pebble that possesses an exaggerated “pregnant” stomach and an exaggerated protruding rear, as well as a head and feet [fig. 4]. Natural, seemingly depictive forms are common and are even found on the walls of the sanctuary caves, where they were often minimally modified to heighten their effect [see Delporte 1982]. Two crude eyes were intentionally scalloped onto the Monpazier head, and the breasts were lightly scraped to heighten their realism. It is the aspect of exaggerated
pregnancy, however, that is the object's key feature, and it was this feature that was addressed by producing one of the most dramatic modifications of an image to be found in the Upper Paleolithic. Directly under the "pregnant" belly a huge, wide-open, very deep oval vulva (fig. 5) was carved with as much care and precision as the smaller, "normal" vulva on the Willendorf figurine. This large vulva is apparently an image and symbol of the "portal" through which the fetal infant carried in the distended stomach above would emerge. (Duhard 1987) This aspect and view of the vulva could probably only have been seen by a midwife or another female who was aiding in a delivery. It is therefore possible that this vulva and figurine were "created" and used in a ritual seeking an easy and safe delivery.²

I have long documented the diversity in Upper Paleolithic female imagery and its uses, including the diversity in the so-called Venus figurines (Marshack 1991a,b). That diversity is not a result of autogenous observation or of "conscious mastery of the material conditions unique to women's reproductive lives" but perhaps represented the opposite—the recognition of and ritual, mythologized participation in the uncertainties and dangers that surrounded the processes of life, birth and death. Such myths and rituals were not aspects of "empowerment and mastery," either political or ideological, or hearth-associated/open-air shelter contexts—might have had something to do with the development of innovative obstetric practices (midwives!) that Trinkaus suggests were part of the biological transition to modern H. sapiens" (1983:222). Data such as those I have presented here would form part of ongoing inquiry into such practices, but "innovative obstetric practices" would surely have involved symbolic and mythic intervention. Such symbolic behavior need not have been an aspect of social "empowerment" or of control over the material conditions of pregnancy and childbirth. Symbolic and material behaviors relating to female processes in the European Gravettian may not have been much different from behaviors in other human cultures earlier, later, and elsewhere. The European Upper Paleolithic merely provides artifactual evidence in stone and bone for an early regional form of such behavior.

² McDermott cites Conkey (1983), who there remarks that the "mislabelled Venus figurines—so often recovered from 'domestic'
but indications of a symbolic attempt at influencing and participating in the periodicities, equations, and difficulties of the processes involved. A two-sided amulet from Grimaldi [Marshack 1986] has a pregnant image on one face and a nonpregnant female image on the other. It may have been worn by a woman seeking pregnancy and a safe delivery much as the Monpazier figurine (and at least one of the Laussel bas-reliefs) may have been used. Among the Gravettian figurines there are images of pregnancy as well as images of nonpregnancy and, therefore, apparently, potential pregnancy [see Marshack 1991a]. Since the Grimaldi amulet incorporates both, it is clearly not an autogenous depiction but rather one image in the variable tradition.

McDermott’s Eurocentric idea that the Gravettian figurines represent a “beginning” of female self-awareness and “conscious mastery of the reproductive conditions of women” is derived from the contemporary effort to locate a “beginning” of human self-awareness in the European Upper Paleolithic [White 1992, but see Marshack 1994] and the “gendering of archeology,” with its effort to shift archeological, theoretical concern towards the role of women in early human cultures. The problem of “self” [see Marshack 1992, 1994] and the role of women in complex symbolic cultures are, of course, important issues. They cannot, however, be adequately investigated or addressed by descriptions of the gross female morphology and supposed “autogenous” contents of the Gravettian figurines.

The notion that mature females across Gravettian Europe were looking under their arms at their hips and buttocks and down to their navels for thousands of years in order to carve images of themselves in hard materials is rather startling. Knowledge and use of the Gravettian style would have been a much simpler process and method.3

Whenever an original idea has been suggested during the more than a century of interpretation of Paleolithic art, its author has tended to overlook alternatives. This contradicts the obvious diversity of approaches in both the creation and the interpretation of works of art [Conkey 1987]. The present paper is relatively convincing in showing how the self-regarding perspective may have contributed to the development of the Gravettian figurine style. It elegantly explains the inability to reproduce heads and the exaggerated proportions of the protruding parts of the body. It nevertheless seems likely that other features, such as massive bodies and short extremities, may be due to factors such as the technical qualities of the material, requiring a consistent shape during both fabrication and use (in contrast to, for example, the bronze figurines of the metal ages), the importance of individual body parts in the eyes of their sculptors, and the established elements of the style. Paleolithic animal figurines equally tend to have short legs compared with their bodies, and we do not expect animals to be self-observing sculptors.

McDermott's article is certainly an innovative and positive contribution that will considerably change our understanding of early female representations. It therefore seems quite unnecessary to argue at the same time against the presence of male representations during the Gravettian or to reduce their number to one. On the basis of a relatively large assemblage of clay figurines from Pavlov I [Klima 1989], I suggest that two of them are very probably masculine. Absolon's earlier collection of ceramics from Dolní Věstonice I includes a hermaphrodite being. Finally, I would call attention to the female figurines that do not fit the self-viewing perspective, such as the hematite figurine found by Klima in 1953 at Petřkovice [new excavations in 1994–95 have helped to clarify its context by unearthing nearby areas covered with powdered ochre]. The individuality of this slim female torso seems due to its younger age and possibly an earlier stage of pregnancy—differences that would be readily recognizable by an outside observer.

As a terminological remark it may be noted that recent studies separate the Pavlovian and Kostenkian as sequential chronological and cultural units.

I applaud the principle of McDermott's attempt to suggest an alternative interpretation of the European Paleolithic female representations. It is an audacious detour from perspectives that considered only the possibility of male producers and male audiences, using female bodies as a medium for the purpose of trade, education, or communication of knowledge. Rather, McDermott proposes exploring "the logical possibility that the first images of the human figure were made from the perspective of self rather than other." This innovative approach exposes previously unstated assumptions that the prehistoric representations were object-oriented, voyeuristic images of an other.

However, many of the arguments that McDermott raises in support of his claim and the conclusions that he draws are either factually or logically flawed. Multiple, equally plausible interpretations may be offered for a set of data, but to be convincing they require strong evidential support and logical consistency. Among the wide range of issues raised by the article (e.g., the status of realism, memory, and functionality in the origins of representation), I will address only a few points directly related to the Central/East European archaeological evidence invoked and the logical moves made in its interpretation.

The argument rests on a basic assumption of stylistic and cultural unity of the "Pavlovian-Kostenkian-Gravettian technocomplex," an entity covering almost all of Europe from France to Russia. Such unity may be suggested, but McDermott's claim that it is generally accepted on the basis of the stone tool technology is highly contentious to say the least. Furthermore, I doubt that many scholars would agree that the Gravettian "originated" in Central Europe with the Pavlovian and spread from there to France and to Russia [one is tempted to ask why then "Pavlovian" has remained a relatively obscure term for those working at the western end of the continuum]. A number of hypotheses about
the relationship between the earlier Aurignacian and its
time-specific local variants (such as the Szeletian in
Central Europe) and the Gravettian have been discussed,
yet the debate remains open and the "origin" of any
technocomplex sketchy at best. While stylistic conven-
tions have been accepted, close scrutiny of individual
lithic collections reveals a much more complex picture
[see, e.g., Leonova 1994 for an argument against homoge-
enity].

One may always argue for some "general similarities"
that span over 10,000 years in a discussion of larger
evolutionary trends. However, to argue for the same
"homogeneity" in an interpretation of social phenom-
ena, as McDermott does, is logically unwarranted and
in this case evidenced unsupported. Women taking
control of their reproductive functions may have constitu-
ted a possible line of social action, but the status of
that action as an "adaptive response" [adaptive for
whom?] that could fit an evolutionary scenario, taking
place for over 10,000 years—the estimated time span for
the dated figurines—requires more in the way of sus-
tained argument to be plausible. Needless to say, Mc-
Dermott does not even hint at the connection between
representation and "feminine control over the material
conditions of reproductive lives" but rather takes it for
granted, leaving this reader unconvincing.

McDermott suggests that the earliest human images
are the "Venuses," a name that he rightly rejects. How-
ever, the archaeological evidence from Aurignacian sites
in Central Europe (Hohlenstein-Stadel, Germany, and
Stratzing, Austria), as well as the French site Brassem-
pouy, clearly shows that relatively sophisticated represen-
tations of humans were made at an earlier time, sug-
gesting that claims of "origins of art" are slightly out of
place for the more recent Gravettian period. Moreover,
the possibility of an older tradition of artistic images on
perishable materials (e.g., wood, leather, drawing in
sand, or body painting) should not be discounted. The
animal figurines from the Aurignacian layers [dated to
34,000–30,000 B.P.] at Vogelherd and Geissenklösterle
[Germany] not only undermine the notion that the
Gravettian female figurines could have been an origin
of anything but also refute McDermott's suggestion that
"if PKG-style images of the human figure were created
and disseminated by women, it is possible that PKG-
style and Aurignacian sculptures of animals, which em-
ploy similar materials and techniques, were created by
women." Even if we accept the possibility that some of
the figurines may have been created by women, the
claim that therefore the women were also responsible
for all animal figurines at the same time period, as well
as during the previous times, is purely a leap of faith,
one that not all of us may feel compelled to take.

McDermott rightly notes that, for example, at Dolni
Věstonice (as well as Pavlov) the majority of the fig-
urines were animals, with only a fraction of human repre-
sentations. This fact is then left behind for the sake of
the interpretation of the human images and the general
hypothesis of self-representation. If women were indeed
creating the figurines as a means of communicating

knowledge about "hygiene and reproduction," why is
the majority of the collection composed of representa-
tion of animals? Was there any identification between
women and animals as the self, or were the animals the
"other"? And what does that tell us about the relation-
ships between men and women at the time? I am left
puzzled, and with a slightly strained neck, despite many
years of yoga practice.

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Few areas of archaeological interpretation are as badly
in need of fresh air as that surrounding Upper Paleolithic
female imagery. McDermott attempts to move beyond
the usual hackneyed interpretations that plague the sec-
ondary literature on the subject, and, unlike many rec-
cent writers on the subject, he has actually examined a
number of original specimens. Nevertheless, the thesis
of his article is quite problematical from both an empiri-
cal and a theoretical perspective.

![Fig. 1. The so-called playing card from Laussel,
France, probably a kneeling female figure with lightly
engraved aqueous reflection (photo A. Roussot).]
A problem at the outset is that McDermott seems to underestimate the intellectual and observational abilities of Upper Paleolithic humans. The proposition of self-viewing representation is founded in large measure on the presumed absence of technological means of self-viewing (i.e., mirrors). However, a telling artifact in this regard is the engraved limestone slab from Laussel, the most credible interpretation of which is that it represents a kneeling woman and her aqueous reflection [fig. 1]. If this interpretation is accepted, it indicates the recognition and depiction of reflected human images by early Upper Paleolithic people. People were almost certain able to combine their own distorted reflections in still water with their daily observations of other people to produce an accurate representation of themselves.

McDermott is not happy with the idea that the reduction of limbs relative to breasts and abdomens was a convention based in differential emphasis on anatomical features. However, if in fact these “distortions” emerge from self-inspection, they should be evident only in human imagery. But a quick glance at the 32,000-year-old Vogelherd animal figurines (foreshortened limbs, absence of tails) or the 31,000-year-old painted rhinoceroses from Grotte Chauvet (pointed limbs) reveals similar conventionalized “distortions.” Unless we accept that the horses and rhinoceroses contemporary with much of the female statuary were sculpting or painting images of themselves, we cannot attribute “distortions” to self-viewing representation. The giving of greater symbolic and representational priority to certain anatomical features seems to me a more viable inference.

In my view McDermott makes an error in presuming the dominance of the visual domain in early Upper Paleolithic female imagery. My own research in the past two years [White 1996a, b, c] has focused very heavily on the totally ignored tactile qualities of these objects, the technological means (polishes, glazes) by which particular surface textures were achieved, and the textures found in nature that they were intended to represent. Indeed, such textures may have been perceived in terms of supernatural power, a possibility supported by carefully buried figurines and fragments at sites like Ave-deeve.

Large numbers of figurines show perforations or carved furrows to permit suspension [fig. 2]. If this implies that they were worn as pendants or amulets (other contexts of suspension are certainly imaginable), their tactile qualities become highly important. They would
have been constantly available to be experienced by the fingers. In this context, emphasis on anatomical features germane to pregnancy and minimization of nonrelevant features make great sense. The fact that more than 90% of the known figurines are manufactured of soapstone, marl, or ivory, all soft and soapy to the touch, buttresses this tactile emphasis (fig. 3).

To the extent that they were intended to be viewed, early Upper Paleolithic female images show some features that directly contradict McDermott’s “autogenous” hypothesis. For example, the furrow that follows the vertebral column in humans is almost always indicated by the sculptor, although entirely invisible to self-inspection. However, the figurines differ greatly in their visibility, largely as a result of variation in size. In McDermott’s figures 1 and 2, all specimens have been rescaled to appear to be the same size. In reality, early Upper Paleolithic figurines range from 2 cm to 30 cm in length.

McDermott repeats many of the stereotypic descriptions of female figurines. For example, he emphasizes bowed heads, while this feature exists in fewer than one in five specimens. The very description “bowed heads” would seem to imply that the figurines are to be read as standing figures. That this may not be the case is illustrated by the Kostienki 1 figurine presented in figure 4. Viewed in a lying position, this figurine may reasonably be interpreted as a woman straining to give birth. Indeed, if many of the figurines were intended to represent lying figures, this would account for frequent flattening or uplifting of the buttocks and pronounced steatotrochanterial tissue.

I am certainly not against the notion that obstetric practices are involved in the context of figurine produc-
tion and use. Indeed, Bisson and I have recently proposed that many figurines may have served not to enhance fertility but to protect women during pregnancy and childbirth [Bisson and White 1996]. However, we need to be careful not to replace masculist ideology in figure interpretation with functionalist, obstetric interpretations saturated with the vocabulary and values of late-20th-century American feminism (e.g., “self-conscious feminine control over the material conditions of their reproductive lives”; see also White 1986b).

In the end, there are three of McDermott’s points about which I should like to express agreement. First, the demonstration in some instances that women projected knowledge (that only they could have possessed) of their own bodies onto sculpted representations indeed buttresses the notion of figurine production by women, even if one does not buy the whole autogenous obstetric package. Second, McDermott is right in underlining the quasi-absence of male figurines in the early Upper Paleolithic sample [see also White 1996a]. Finally and refreshingly, following Duhard, he distinguishes the early Upper Paleolithic figurine sample from that of the late Upper Paleolithic, which exhibits much higher proportions of pregnant and male representations.

Finally, a minor point: The bas-relief allegedly from La Mouthe should probably be expunged from the sample, as it is almost certainly a modern deception [White 1992b].

Reply

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My decision to present the autogenous hypothesis without a discussion of the interdisciplinary context from which it emerged appears to have encouraged some overly rigid assumptions about how self-generated visual information functioned in the fabrication of PKG-style images. I have concentrated on the form and content of retinal information for the sake of clarity and because such observations can be experimentally replicated. My position is that the anatomical omissions and proportional distortions of PKG-style images originated with visual information derived primarily from the physical point of view of self but that other sensory domains and cognitive processes also undoubtedly played a role [see n. 5]. Pavlovian, Kostenkian, and Gravettian women would not have been required to stand naked for hours attempting to capture the foreshortened masses of their body in intractable materials, because they also presumably had an internalized body image or schema of themselves to consult. As Davis’s comment about clothing indicates, there is every reason to believe that the ability to form a mental picture of the body had evolved by this time. This presumption is especially relevant since our modern internalized image of physical self appears to incorporate size errors remarkably similar to those observed in PKG-style images.1

Although one most often encounters body-image distortions in relation to eating disorders such as anorexia nervosa [Slade and Russell 1973], healthy individuals also estimate body size differently and significantly less accurately than nonbody objects [Tiemersma 1989]. Even more important, these errors reveal consistent patterns of over- and underestimation linked to the geographical location of body parts. Head width, forearm length, and waist width are most often overestimated, whereas hand and foot lengths are typically underestimated [Fisher 1986, Shontz 1969]. The distances from the navel to the feet and from the crotch to the feet also tend to be underestimated [Nash 1969]. The fact that multiple studies reveal a general trend to overestimate the size of the upper body and to underestimate those of lower body areas [Fisher 1986:179] seems particularly relevant to understanding the origin of the lozenge composition.

It is interesting that errors in body-size estimates are largely unaffected by body postures (e.g., sitting versus standing) and are not appreciably influenced by whether subjects can or cannot see their bodies. Indeed, the use of a mirror by subjects reduced but did not eliminate the typical body-oriented size judgment pattern [Shontz 1969]. In fact, body-size judgments are not appreciably influenced by a host of uncertainties about the comparability of measures [Fisher 1986:165].

There are numerous parallels between modern body-schema studies and PKG-style images. Women tend to overestimate the width of the waist more than men [Fisher 1986:169], and pregnant women overestimate their body size more than other women [Slade 1977:175]. Hester’s observation [1970] that the upper arm is usually underestimated is of interest precisely because it runs counter to the general trend. It indicates that the modern body schema can be highly specific in the way in which it incorporates different body parts. Bisson, Duhard, Jelinek, and Hahn echo in one form or another Delporte’s pointed question: “Why, then, are the arms, being so close to the head, absent or atrophied?” Presumably, the arms and hands, being close to the eyes like the breasts, should be similarly large or of normal size. Our body schema, however, may employ different strategies to encode different body parts. For example, it has been observed that a subject’s errors in body-size judgments have considerable stability over time [Fisher 1986:166]:

The one exception involved judgments of hand length. Although errors of estimation of hand length

1. The 20th-century’s interest in how human beings encode their individual physical existence emerged in response to medical observations about the phantom-limb phenomenon of amputees, the unusual size distortions experienced by schizophrenics and those on drugs (macro- and microsomatognosia), and the neurological deficits of those who suffer brain damage from disease or trauma. Ekines properly recognizes that Merleau-Ponty’s phenomenological philosophy and the autogenous hypothesis share a point of departure in pioneering neurobiological and psychological definitions of body image and body schema [Head and Holmes 1911, Schilder 1935, Tiemersma 1989].
are reliable from trial to trial within a given testing session, they are not reliable with a 2-week retest interval. This is an intriguing finding because the hand is so much in use, and one might expect it to be perceived with unusual accuracy and stability. Shontz (1969) speculated that it is precisely because the hand is so much in use and therefore constantly changing in shape and apparent size experientially that one would evolve a concept of it within wide rather than narrow “cognitive boundaries.”

We must recognize that the arms and hands do not produce any one single characteristic retinal image. In some positions the eye receives a much “thinner,” foreshortened image of the arm than many realize. A simple optical principle tells us that this must be so, and modern body-schema research suggests that middle Upper Paleolithic artists may have chosen this experience as the basis for their representation. Of course, if self-generated visual information does play a role in determining the characteristics of PKG-style images, representation of the hands and arms is doubly conflicted by their being both model and instrument of fabrication.

Instructors in beginning art classes routinely observe that students drawing the human body have the greatest difficulty in mastering the correct detail and proportions of hands and feet. One typical “sophomoric” solution to the difficulty of rendering these appendages involves simply eliminating them from the composition. When feet are attempted, the most common error is to render them too small. Readers may be surprised to discover that their feet are equal in length to their forearms from elbow to wrist. The most common problem in beginning drawing is “to shrink the extremities of the figure” (George Sample, personal communication, November 28, 1995). Apprehending the objective dimensions of one’s own body is not an intuitively obvious process; much of what we see is what we have learned to see.

Many express a more general puzzlement about why PKG-style artists would choose to create uncorrected representations of the body when they obviously had ready access to its true appearance. The illogic or lack of fit these commentators perceive seems due less to any weakness of the evidence or argument I present than to the assumption that a technologically unmediated view of one’s own body is a “distortion.” To think in these terms presupposes a cultural standard based on the objective appearance of other human beings the existence of which during the middle Upper Paleolithic cannot be proven. We cannot use the argument that we are today more familiar with the point of view of the other in images or that we are more comfortable using mirrors for our self-inspection tasks to discount the evidence of artifacts indicating that they were created from the point of view of self. The attributes of the figurines must be given priority over logic—which, as I have attempted to indicate above, is not always self-evident.

Bisson, Duhard, Elkins, and White argues that the use of water as a mirror is inconsistent with the emergence of a tradition of representation based upon visual self-inspection. Until we encounter polished obsidian discs during the Neolithic of whose function we can be reasonably certain, we have no evidence that the ability to see light reflected from a two-dimensional surface as a coherent image had been mastered. That we are surrounded by myriad highly reflective surfaces made possible by centuries of accumulated technological expertise does not mean that Upper Paleolithic artisans used reflected images. Without the technology to support the practice there would have been far less experience with reflected images than today, and an appreciation of their potential in a few properly illuminated natural pools of still water could have been virtually nonexistent.2 If water mirrors were used, why are there virtually no representations of faces? Nor can we give much weight to the identification of an engraving from Laussel as a kneeling woman and her aqueous reflection; this inherently ambiguous one-of-a-kind image has with equal conviction been identified as a scene of sexual intercourse (Luquet 1930:85), a woman giving birth (Marshack), and a mythic Janus-like figure (Coppens 1989).

The autogenous hypothesis confronts us with basic issues about how culture interacts with perception. As for Dobres’s concern about my neglect of the “cultural lens through which all seeing is accomplished,” I can only point out that this was not my subject. The answer to my basic experimental question—whether the physical point of view represented in PKG-style female figurines is that of self or other—is not dependent upon the operation of any cultural factors other than those which limit what we can learn to see. A similar response can be made to Duhard; our image of self may be interpreted by the occipital centers of the brain, where retinal distortions are filtered out by the objective standards of our culture, but the physical properties of the retinal image are not altered by the experience. What is lacking is any evidence that the middle Upper Paleolithic had also learned such skills. As for the content of the retinal image, the Mach drawing presented by Elkins is interesting for the size of the arms and feet. As for artists’ creating self-views that do not involve any diminution of the limbs, I would point out that Joan Semmel paints from photographs rather than from direct self-inspection. It would appear from drawings such as Mach’s that the modern camera lens actually eliminates some of the diminution naturally present in the retinal image. The explanation lies in the history of Western image making. The camera lens evolved not so much to capture visual reality as to replicate how we represented reality in paintings.

As I have stated, reliance on visual self-inspection does not mean that other cultural factors did not participate in the development and spread of PKG-style images. Once discovered or transcribed, atrophied arms, for example, would become, in Davis’s words, “a pictorial

2. Nor can I accept the argument that animals today show the ability to recognize reflected images in laboratory and domestic situations. Animals do not make mirrors, and neither, as far as we know, did men and women during the Upper Paleolithic.
convention available for reproduction, revision, and manipulation” without necessary involvement of either retinal image or internalized body schema. The autogenous hypothesis is a radically new idea which challenges many basic assumptions, but it does not modify what we have already learned about the cultural life of visual forms. Identifying what viewpoint artists took to their primary subject in no way eliminates the probable contribution of more traditional vehicles of stylistic propagation. Indeed, representational conventions originally developed to create human figures are the logical source whenever similar stylistic elements are encountered in animal images.

The presence of attributes invisible to the self does not necessarily run counter to a tradition of self-representation. White rightly calls attention to the important role played by tactile qualities, particularly in the choice of materials and in the technical refinements of surface finish. Indeed, we should expect tactile as well as proprioceptive and kinesthetic knowledge to be represented if these pieces are self-portraits. The Monpazier piece [Marshack’s fig. 4] is particularly suggestive in this. The weight of a pregnant abdomen changes a woman’s center of gravity and contributes to lower back pain among expectant mothers. In this piece I think the exaggerated sway of the lower back and protruding buttocks, formed as they are by the evocative shape “found” in a natural pebble, could easily represent the physical discomfort of the woman who selected it. The expressionist manifestation of proprioceptive and kinesthetic information may also be seen in its large oval vulva [Marshack’s fig. 5].

Duhard [1987] has demonstrated that the physiological changes of the birth canal during delivery are accurately rendered by this feature, and I see no reason that it could not represent the “feelings” of the woman who experienced this process. The Monpazier piece also reveals new relationships among PKG-style images. Viewed from above, it is virtually indistinguishable from “the punchinello” from Grimaldi (my fig. 9, b) similarly viewed, even though the two pieces are radically different from the point of view of the other.

While I agree with Marshack and Svoboda that the pragmatics of technique and material exert an influence on the design of sculpture, there is no necessary structural reason for PKG artists to have made the specific choices they did. In the case of arms, if the technical imperative is to avoid breakable projections, what is the advantage of thin attached arms over thick ones—or even normal-sized ones? The same response can be made to Marshack’s suggestion that the lozenge composition may reflect the requirements of carving. Rendering the upper and lower body as thicker and blunter than normal is also a plausible strategy for eliminating breakage and such a design solution is perhaps preserved in the thickened lower extremities of the singular figurine from Eliseevitchi. Marshack calls attention to the high proportion of missing feet and heads in the corpus, indicating that the lozenge composition was no solution to the problem of carving appendages and other protuberances. Thinning or tapering upper and lower body elements may actually have contributed to breakage.

Several argue that there is too much variability to be encompassed by any theory. Few take issue with my critique of prior claims of stylistic heterogeneity, but some mention pieces they think are inconsistent with either the central tendency of PKG-style images or the content of self-generated visual information. I omit the Mal’ta and Buret’ Siberian specimens from consideration because they are on another continent and, as Delporte reiterates, belong to a different stylistic group. Distance in style and time explains my “failure” to discuss three Central European figures dated to the earlier Aurignacian. I did consider the “maleness” of the poorly preserved piece from Hohenstein-Stadel, and Hahn’s comments highlight its problematic nature. This piece was in such a fragmentary condition when found that decades passed before it was identified as a human figure, and its restoration renders any extrapolation from its attributes tenuous at best. The identification of the “Dancing Venus of Galgenberg” and the “orant” of Geissenklösterle as images of humans is reasonable but by no means certain, particularly given their poor preservation. Were these two pieces not archaeologically dated to the Aurignacian, there would be little formal reason to perceive them as related. Marshack does make a convincing case for a general similarity in the raised or extended position of the arms, which could relate to later reliefs, but the resemblance is accomplished by different means. In any case, recognizing two or three highly variable images of the human figure from the Aurignacian presents no particular difficulty to the notion of subsequent emergence of an integrated tradition of representation in the later Pavlovian, Kostenki, and Gravettian cultures. Perhaps efforts to represent the human figure in the Aurignacian were superseded by a more successful design solution. There is no requirement that one descend from the other. Yet it should be noted that the sense of animated movement encountered in the Galgenberg and Geissenklösterle figures differs from the static quality of PKG-style poses. Could this be a manifestation of the “rigid” concentration some think would be required by the fixed points of view inherent in visual self-inspection?

In any genuine stylistic cluster there will always be some artifacts more or less peripheral to the central tendency. Some of the factors pertinent to understanding such variation in terms of the autogenous hypothesis have already been introduced, and to these we must add those associated with the internal development of the PKG style. Because of the multiple viewpoints required for visual self-inspection, representational advances should tend to be localized within the boundaries of one or more of these views. One logical conjecture is that the earliest autogenous images involved regions close to the eyes. Certainly many of the pieces from the early site of Dolni Věstonice have the stiff, angular, or “archaic” quality associated with formative periods in stylistic traditions. Even the use of clay as a medium is germane to such a possibility. Because of the speed of
execution and ease of correction it affords, its early use at Pavlovian sites suggests an exploratory milieu from which an early form of the PKG style emerged. What Cook sees in Dolní Věstonice no. 1 as the result of face-on observation inconsistent with the autogenous principle [see my fig. 1, g] I see as early attention to representing the upper frontal surface of the body—the first region encountered when the head is lowered. Only in the breasts and abdomen of this piece do we encounter any observational accuracy; the lower body has the conceptual aspect of a flattened geometric cone, and no attempt was made to render the buttocks.

Additional evidence that awareness of the upper frontal surface of the female body led in the development of the autogenous image is to be found in some of the most enigmatic female representations from Dolní Věstonice—the so-called Venuses nos. 12 and 14, which Cook also sees as inconsistent with my theory. If Dolní Věstonice no. 14 (fig. 12, a), usually described as a highly stylized female figurine consisting of pendulous breasts attached to an abstract rod representing the body, is observed from above, the foreshortened rounded lower end can be centered between the breasts to be read as a pregnant abdomen (fig. 13). Furthermore, with slight variations in the angle of regard one can make the abdomen rise between the breasts as if the entire course of pregnancy were being represented. This latter possibility adds an intriguing temporal dimension to the numerous marks and lines engraved on this piece (see Marshack 1991a:fig. 162). In any case, when viewed in this way, Dolní Věstonice no. 14 presents an organic, realistic rendering of the upper frontal body identical with those found in more complete and later PKG-style images. Incidentally, I concur with Cook that some pieces incorporate both male and female sexual references. Seen from the point of view of the other, the breasts and upper conical appendage of Dolní Věstonice no. 14 read convincingly as a male member complete with scrotal asymmetry. Do the multiple viewpoints of this piece thus reveal an association of self-view with woman and other-view with man?

Since the components of Dolní Věstonice no. 12 (fig. 12, b), a set of bilobed pendant beads, bear such a strong resemblance to the breasts and upper conical appendage of Dolní Věstonice no. 14 and are very similar to these elements of the figurine from Savignano (see Delporte 1993a:fig. 97), there is every reason to conclude that they are themselves representations of breasts. When the distinctive “mammiform” vestigial canines of the red deer, perforated for suspension, are symmetrically strung in pairs, they are almost identical with the Dolní Věstonice no. 12 beads (fig. 12, c). That the origin of PKG-style beads is to be found among Aurignacian body ornaments is supported by two lines of evidence. First, red deer canines and the breasts of PKG-style images are very similar in shape, and both lack nipples. The reason is self-evident for the former but far less so for the latter. Second, Bisson and White observe that some figurines are perforated for suspension as body ornaments, and while their presumed location on the upper frontal surface of the body [either sewn to clothing or suspended from the neck] would have made them available for fondling, it would also have mimicked the view of one’s own body. Similarly, wearing a bilobed or double breast pendant bead reproduces the perspective from which a woman views her own breasts.

Finally, not all variations encountered in middle Upper Paleolithic images of the human figure need to be related directly to the central tendency of the autogenous principle. Other human beings were certainly available to be observed, although the often-mentioned fragment from Petřkovice in Moravia is the only unequivocal example that can be cited. It is not until the Magdalenian that representation of the other becomes at all common.

Although many commentators raise questions about the autogenous hypothesis, few challenge the evidence I present that these images form a coherent style. I con-
tinue to think it highly significant that the first representations of the human body to spread the length of Upper Paleolithic Europe involve a distinctive set of anatomical omissions and distortions. Most choose to see these as a logical but essentially arbitrary consequence of symbolic or psychologically mediated activity [Duchard 1995]. Yet such interpretations typically fail to consider all such departures or to explain why this particular set of vertical and horizontal distortions and not others. For example, why should most figurines have elevated posteriors? Proprioceptive and kinesthetic pathways could easily be involved, for there is an inevitable tendency to elevate the buttocks toward the eyes whenever one attempts their visual inspection. Furthermore, the glutei medii are typically far larger than the buttocks proper and are often mistaken for them, producing the upside-down configuration encountered at Lespugue and certain other sites (Luquet 1934). Here the furrow of the lower spine between the enlarged glutei medii is mistaken for the gluteal cleavage separating the buttocks. This is perhaps what White has reference to when he speaks about the vertebral column’s being represented. While White’s presentation of Kostenki no. 1 in a supine position could account for some flattening or lateral displacement of tissue (White’s fig. 4), it could not elevate the inferior terminal margin of that region to the level of the navel. Nor is it likely that a supine birthing position is indicated, since this became widespread only with the advent of modern European medical practices. During the Upper Paleolithic a standing, kneeling, or squatting position would have been more likely (Witkowski 1889).

Identifying where the artist stood when creating a representational work does not tell us what it meant to its creator or how it was used or seen by others. The autogenous point of view becomes but one more variable to consider. Even if PKG-style images embody realistic information of practical benefit to women’s lives, this does not preclude their functioning in any number of symbolic, mythic, or ritualistic contexts. Marshack’s and Cook’s observations about the importance of body ornaments, which had to have been carved after the basic anatomy, seem very much in keeping with such possibilities. The critical role of associated contextual and empirical attributes in future studies is certainly not diminished either, I was unaware that I had suggested otherwise. The autogenous hypothesis does affect our interpretation of the attributes of the figurines. Insofar as the observed anatomical omissions and distortions are consistent with self-inspection and the internalized operation of human memory or body schema, they cannot be said by themselves to be proof of symbolic intent.

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